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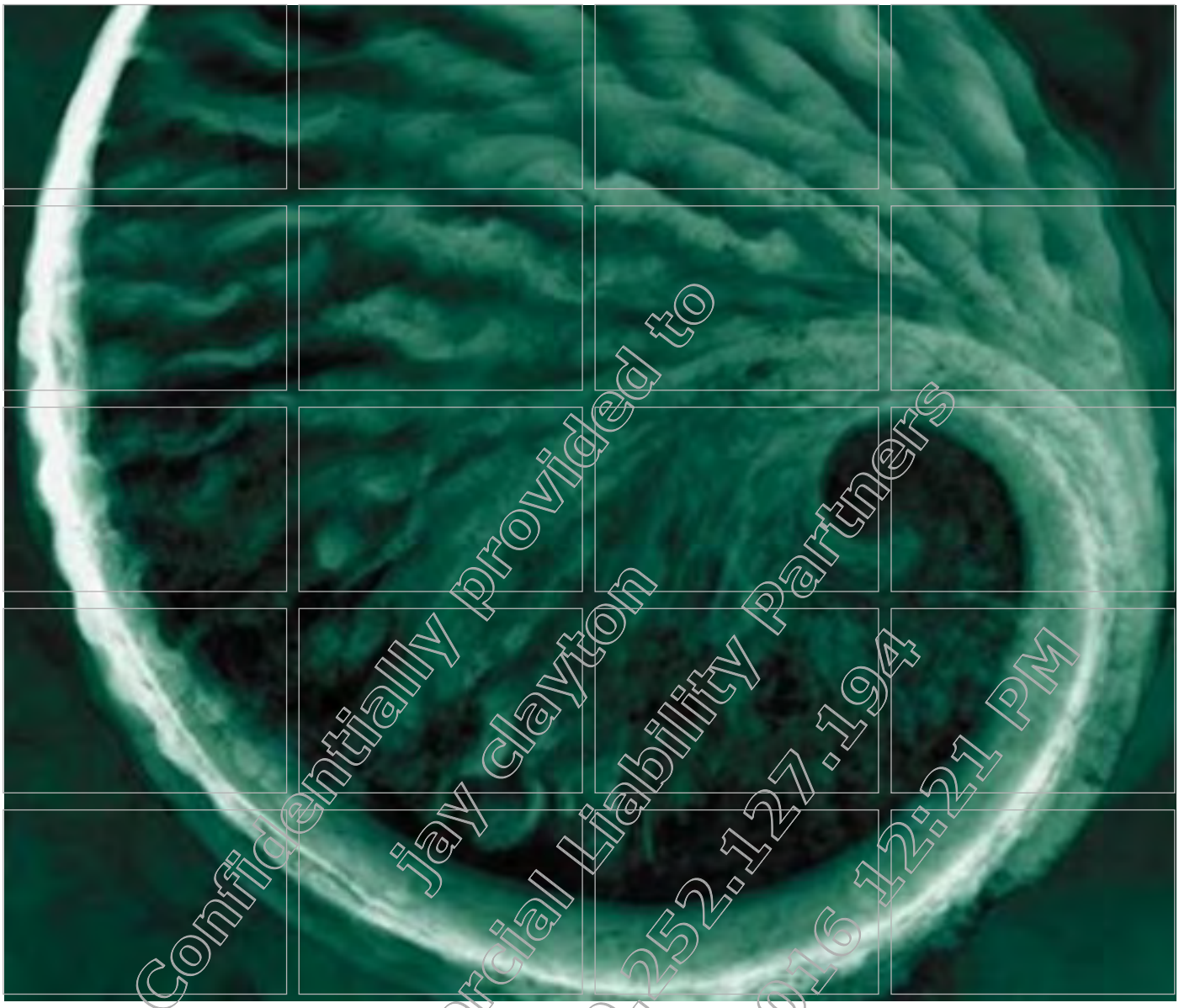

Prepared For:
Midwest Generation, LLC

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Hazardous Materials Assessment Report – Crawford Generating Station

October 2012

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Hazardous Materials Assessment Report -

Crawford Generating Station
3501 South Pulaski Road
Chicago, Illinois

October 2012

Project Number 0168420

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1 Crawford Generating Station Hazardous Building Materials Summary

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A ERM Asbestos Survey Report, July 2012

1.0 INTRODUCTION

Environmental Resources Management, Inc. (ERM) prepared this Pre-Demolition Hazardous Building Materials Report for Midwest Generation, LLC (Midwest Gen) regarding the Crawford Generating Station located at 3501 South Pulaski Road, Chicago, Illinois (the "Site"- See Figure 1).

Midwest Gen may decommission the generating station at the Site and in preparation for the decommissioning and potential sale of the Site, Midwest Gen requested that ERM conduct a more extensive hazardous building material assessment (HBMA) to address 1) pre-demolition abatement/decontamination needs, 2) demolition debris management and disposal needs, and 3) construction worker exposure issues.

1.1 SITE BACKGROUND

The facility is a coal-fired electric power generating station occupying approximately 70 acres. The main structure on the property was originally built in the early 1920s with the first unit being operational in1924. There are currently two operating units: Units 7 and 8. Six units previously operated at the site and have been retired. Units 1 through 4 were dismantled in the 1960s and were removed. Units 5 and 6 were retired in the early 1970s and portions remain in the east half of the main generating building. There were twelve peakers at the site, fueled primarily by fuel oil and natural gas. The peakers were retired, dismantled and removed from the site in 2006. Electrical power is transmitted from the site to the area grid through overhead transmission power lines.

The main generating building is located near the western edge of the property. Low sulfur coal from Wyoming is delivered to the site from the Midwest Generation Will County Station via barge along the Chicago Sanitary and Ship Canal (Canal) and is transferred to a coal pile via a conveyor system. Coal is transferred to either the coal pile (capacity of 1.5 million tons) on the northeast side of the property or to the crusher house and then into the station. The coal pile has been purposefully reduced in size by up to 50 percent in recent years through a reduction in inventory from 60 days to 30 days. Storm water runoff from the coal pile is contained in the coal pile settling pond (also identified as Basin 3), located west of the coal pile and northeast of the main generating building. A 750,000-gallon fuel oil storage tank, previously used for the peakers, was dismantled and removed from the site in 2006. The tank had not been in active use for some time since the peakers more recently were primarily fueled by natural gas. There are several other aboveground fuel and material storage tanks with secondary containment located within the station property. The

station also includes a single permitted approximately 4,000- gallon diesel fuel UST and three oil/water separators.

Site runoff is collected and directed to a number of basins within the station property. Many of the basins, or "pits", have been recently lined with asphalt while at least one (Basin #3) remains unlined. Sanitary wastewater generated onsite is discharged to the MWRDGC for treatment. A National Pollutant Discharge Elimination System (NPDES) permit governs the process wastewater treatment system and discharges of condenser cooling water, house service water, demineralizer regenerant wastes, boiler blowdown and drain water, intake screen backwash, and storm water runoff from the various pits.

Cooling water is drawn from the Canal near the southwest property boundary and returned to the Canal just west of the intake channel. The station uses a once-through cooling water system. It should be noted that a portion of the steel ribbed seawall east of the intake canal and near the obsolete ComEd 66 and 38 KV transmission buildings has recently partially collapsed. Repair options for this wall are currently being evaluated. Fly ash is collected in silos and managed under contract by Lafarge Company for beneficial reuse and disposal. Bottom ash is collected in hydro-bins located north of the main generating building and is also sold for beneficial reuse or sent for off-site disposal.

1.2 FACILITY STRUCTURES AND FEATURES

The Site considered for sale is improved with the following six main buildings:

- Boiler Room –10-story building with a basement used for boiler operations, to include burning of coal to heat the boilers (this structure is immediately adjoined to the south by the turbine room);
- Turbine Room –one-story, approximately 40 feet tall building that adjoins the Boiler Room to the south with a mezzanine and basement used for turbine operations;
- Switch House –two-story building with a partial basement that adjoins the Turbine Room used for office space and historically as a building that housed electrical switching hardware used in management of the generated electricity and/or operation of the plant;

- Administrative Building –two-story building located immediately adjacent to the south of the Turbine Room and north of the Switch House with a basement used for office space and administrative operations.

- Waste Water Treatment Plant –two-story building with a large water equalization basin and treatment aboveground storage tanks (ASTs) used to treat and monitor water used at the Site.

Several other minor buildings or units also occupy the Site: Fly Ash Silo Unit, Barge Unloading Building, Dock Junction House, Drive House, Coal Crusher House, Coal Plant Office, Coal Handling-related Buildings (2), Locomotive House and other minor storage buildings and ASTs.

Areas between and around the buildings are concrete, asphalt paved, or gravel, and are used for parking, access to other Site buildings/areas or as vacant areas. The on-site areas of water consist of three ponds, consisting of Pond #1, Pond # 3 and Pond #4, where Pond #4 is the largest. Two water inlet projects into the Site from the south and historically allowed CSSC water access into the Site for coal barge unloading, although current barge unloading is handled from barges tied up on the northern side of the CSSC. A large coal stockpile is present in the northeast corner of the Site.

2.0 FACILITY CHARACTERIZATION OBJECTIVES AND SCOPE

2.1 OBJECTIVE

The objective of the hazardous building materials assessment was to evaluate hazardous materials and/or universal wastes present or possibly present at the facility, in order to:

- Determine which materials/equipment require decontamination, removal or abatement prior to demolition;
- Determine demolition debris management, segregation, and disposal needs;
- Assess appropriate construction worker health and safety requirements/exposure issues; and
- Evaluate whether additional assessment is necessary to address the above objectives.

Building materials that may need to be abated or removed prior to demolition include asbestos, universal waste (i.e., fluorescent lamps and ballasts, mercury-containing equipment [i.e., thermostats and switches], and emergency lighting/batteries, oils and lubricants, and refrigerants, and metal vapor lights) and select building materials. Also, the presence of regulated materials in building materials will trigger certain construction worker exposure management steps depending on concentrations.

2.2 SCOPE

The scope of the pre-demolition building materials characterization included the following:

- Evaluation of building materials, equipment, and debris that may contain universal waste, hazardous waste, or other constituents regulated with respect to demolition and material disposal; and
- Sampling of potentially asbestos containing material (ACM), such as process-related equipment and building materials.

3.0 BUILDING MATERIAL ASSESSMENT AND SAMPLING

3.1 VISUAL ASSESSMENT METHODS

During June 2012, ERM inspected the Site to visually evaluate:

- Materials that may require sampling and laboratory analysis in order to determine proper disposal;
- Materials that may require segregation during demolition, such as for recycling/disposal or hazardous/nonhazardous disposal; and
- Whether regulated materials are potentially present or suspected and whether they would require special handling and/or disposal.

Several Site buildings (e.g., pump house west of Switch House #1) were not accessible due to the lack of matching keys available at the time of the Site visit. In addition, portions of some buildings (e.g., Number 18 Boiler House) were not accessible due to long terms of inactivity and expired grating inspections.

3.2 SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

The building material characterization consisted of the sampling and analysis of suspected ACM. The ACM sampling methods, locations and analytical results are described in a separate report included as Appendix A.

4.0 CONCLUSIONS

Because the facility is slated for decommissioning, sale and possible demolition, ERM evaluated the results against:

- IEPA's July 2011 proposed clean construction and demolition debris (CCDD) disposal criteria regarding off-site disposal (35 IAC Subtitle J, Chapter I, Part 1100),
- USEPA and or IEPA TACO Tier 1 ROs regarding on-site disposal; and
- IEPA TACO Tier 1 ROs and applicable OSHA regulations regarding potential construction worker exposure and potential personnel medical and exposure monitoring.

In summary, ERM survey identified that certain building materials contain asbestos which will affect the proposed demolition activities and warrant preparation of plans to address material management, disposal, and health and safety monitoring of demolition workers.

The following section summarizes those findings.

4.1 UNIVERSAL WASTE AND OTHER POTENTIALLY REGULATED MATERIALS

Based on ERM's observations and the age and condition of the facility, the following regulated materials could be present at the facility as universal waste:

- PCB-containing fluorescent light ballasts and electrical equipment such as transformers, switchgear and motor control centers;
- Mercury-containing lamps and thermostats, as well as in switches; and
- Heavy metals contained in batteries in emergency lighting and backup power sources, and in cathode ray tubes and electronic devices.

In addition, there were other materials found which will have to be managed and handled separately from the bulk demolition debris:

- Refrigerant in air conditioning units

The distribution of the above materials as observed within accessible Site structures are presented in Table 1 and a map of Site structures is found in Figure 2. Overall, the material found is typical of buildings of this age and requires the common action of removal prior to demolition of the facility. Table 1 illustrates that the most prevalent universal waste located onsite is the facility lighting.

4.2 ASBESTOS

The asbestos found in the facility as part of the asbestos survey performed by ERM in July 2012 should be abated prior to demolition by a licensed asbestos abatement contractor. ERM recommends random site visits during these abatement activities to observe compliance with applicable regulations.

5.0 REPORT LIMITATIONS

Results of this assessment are based upon the findings of the limited sampling of the select areas of the Property at a particular point in time and comparison to currently available proposed standards or guidelines. Professional judgments expressed herein are based on the current available facts within the limits of the existing data, scope of work, budget, and schedule. Conclusions and recommendations regarding the Property represent the professional opinions of the ERM personnel involved with the project, and ERM's report should not be considered a legal interpretation of existing environmental regulations.

This report has been prepared for the sole and exclusive benefit and use of Midwest Gen. Notwithstanding delivery of this report by ERM or Midwest Gen to any third party, any copy of this report provided to a third party is provided for informational purposes only without the right to rely. Reliance on ERM's report by any other person(s) or entity(ies) is strictly at their own risk, and ERM makes no warranties to person(s) or entity(ies), other than Midwest Gen who use the information provided in this report. If other person(s) or entity(ies) wish to rely upon this report (i.e., lenders, mortgagers, insurance companies, or other parties to a transaction), ERM will require that such parties agree in writing to ERM's contract terms.

The services provided by ERM during this project have been rendered in a manner consistent with the level of skill and care ordinarily exercised by member of the profession currently practicing under similar conditions. It is ERM's intent that the conclusions and recommendations stated herein are intended as guidance and not necessarily as a firm course of action, except where explicitly stated as such.

Opinions expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule. Results of this assessment are based upon the visual site inspection of readily accessible areas of the subject property conducted by ERM personnel, and information from historical documents and interviews with knowledgeable persons regarding the site.

Table

Hazardous Building Materials Assessment
Midwest Generation
Crawford Power Station
Chicago, IL

Building	HBM	Quantity	Notes
Locomotive House	Window AC	1	
	Sodium Vapor Lamps	9	
Coal Plant Office	MV/MH	1	
	Fluorescent Bulbs	68	
	Fluorescent Fixtures	34	
	Refrigerator	1	
	Microwave	1	
WWTP	MV/MH	32	
	AST	1	Labeled 1791 Sodium Hypochlorite ~15k gal
	AST	1	Labeled 1760 - Corrosive Liquid (Misc) ~15k gal
Hydrobins Octagon (SE of HAZMAT bldg)	Sodium Vapor Lamps	6	
	MV/MH	2	
HAZMAT Bldg	Sodium Vapor Lamps	12	Unable to enter West side of building-locked
	MV/MH	2	
	55 gal drums		Misc 55 gal drums
Oil Storage Building	MV/MH	8	
	55 gal drums	40	drums labeled oil
GSEP Bldg (#30)	Fluorescent Bulbs	12	
	Fluorescent Fixtures	6	
South of GSEP Bldg (not labeled)	AST	1	1000 Gal Gasoline
Oil Storage Bldg	MV/MH	8	
	55 gal Drums	40	Drums labeled oil
ASH Silo Bldg	Sodium Vapor Lamps	10	
	MV/MH	1	
66KV Reactor Area	Reactor	1	labeled "Contains PCB's"

Bldg. West of Boiler Room			
	MV/MH	2	
d Gas House #261			
	Sodium Vapor	4	
Crib House			
	Sodium Vapor	3	
Coal Handling Tractor Main. Bldg			
	AST	1	Diesel Tank ~500 gal
Switch House			
	MV/MH	22	
	55 gal drum	1	unknown contents
	Switch gear motors	110	oil filled motors
Turbine Room			
	Fluorescent Fixtures	48	
	Fluorescent Bulbs	96	
	MV/MH	10	
	Diesel Motor	1	contains oil
	AST	1	~500 gal appears MT
	Batt pack (exit)	2	
Precipitators			
	Airborne contaminants		Contaminants id'ed by Mid Gen as possible -
			Particulates, Crystalline silica, Lead, Arsenic, and
			Mercury
Boiler Room			
	Fluorescent Bulbs	788	
	Fluorescent Fixtures	338	
	MV/MH	58	
	Drinking Fountain		
	Commercial AC	2	

Crawford Station Aux Power Transformers

L/Ice Team / Eqpt Hist/ Transformers

TRANSFORMER NAME	KVA	VOLTAGE	XFMR FLUID	SAMPLE FREQ (days)	SERIAL NUMBER	GALLONS OF OIL	Correction Factor	NITROGEN OR BLADDER	MANUF.	PCB's/ Test Required (Shaded)	TYPE OF SAMPLE	SPR SWITCH	LOCATION	Year In-Service
Unit 7														
MPT 7Y	150,000	138 kV/ 12kV	OIL	180	GBM30951	13660	1.46	BLADDER	ABB	Non PCB	DGA, Dialectric, Water	YES	Outside, South Side	1993
MPT 7G	150,000	138 kV/ 12kV	OIL	180	GBM30952	13660	1.46	BLADDER	ABB	Non PCB	DGA, Dialectric, Water	YES	Outside, South Side	1993
UAT 571	9375/7500	12kV/ 4160	OIL	180	3083829	1525	13	N2	Allis Chalmers	15 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1957
UAT 572	9375/7500	12kV/ 4160	OIL	180	3083834	1525	13	N2	Allis Chalmers	.97 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1988
Tr. 573	16,000	12 kV/ 4kv	OIL	180	1900741	2050	9.75	NONE	Moloney	1.4 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1961
SAT 57R	20,000	138kV/ 4kV	OIL	180	M162439B	4940	4.05	NONE	General Electric	Non PCB	DGA, Dialectric, Water	YES	Outside, North Side	1993
480V SUB 471	1200	4kV/ 480V	**SILICON**	180	3051820	464	43	NONE	Allis Chalmers	260 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1957
480V SUB 472	1200	4kV/ 480V	**SILICON**	180	3051819	464	43	NONE	Allis Chalmers	260 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1957
Unit 8														
MPT 8	385,000	138 kV/ 12kV	OIL	180	1-0140-26782-1	17460	1.145	N2	Allis Chalmers	1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
MPT8 Tap Changer	East		OIL	180	1-0140-26782-1					1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
MPT8 Tap Changer	West		OIL	180	1-0140-26782-1					1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
UAT 581	16,000	12kV/ 4160	OIL	180	1900740	2050	9.75	NONE	Moloney	2.1 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1962
SAT 58R	20,000	138kV/ 4kV	OIL	180	M162439A	4940	4.05	NONE	General Electric	Non PCB	DGA, Dialectric, Water	YES	Outside, North Side	1993
480V SUB 481	1500/ 1725	4kV/ 480V	**SILICON**	180	7617-60	540	37	NONE	ITE	3.3 ppm	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1961
480V SUB 48R	1500/ 1725	4kV/ 480V	**SILICON**	180	7618-60	540	37	NONE	ITE	1.7 ppm	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1960
U8 T-R (16 SETS)	< 50 kVA	480V/ 50kVDC	Mineral Oil/ Silicon	2 yrs	Various	< 200		NONE	Research Cotrell	SEE BELOW	DGA, Dialectric, Water, PCB	NO	**Precip Area**	

Crawford Station Aux Power Transformers

L/Ice Team / Eqpt Hist/ Transformers

TRANSFORMER NAME	KVA	VOLTAGE	XFMR FLUID	SAMPLE FREQ (days)	SERIAL NUMBER	GALLONS OF OIL	Correction Factor	NITROGEN OR BLADDER	MANUF.	PCB's/ Test Required (Shaded)	TYPE OF SAMPLE	SPR SWITCH	LOCATION	Year In-Service
Coal Handling														
422	1000	12 kV/ 480V	OIL	180	338297	555	36	NONE	Wagner	1.8 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	1941
432	1200	12 kV/ 480V	OIL	180	C 00511 5 1	450	44.4	NONE	Pennsylvania	1.2 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	1960
521	1500	12kV/ 4160	OIL	180	2 79027	300	66.7	NONE	Ferranti Packard	15.3 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	
Spare 521	1500	12kV/ 4160	OIL	180	PJJ-0860	264		NONE	SIEMENS	Non PCB	DGA, Dialectric, Water	NO	Coal Handling Yard	2004
2300 Volt														
9	3000	12 kV/ 2300V	OIL	180	559002362	705		Sealed tank	Siemens (Cooper)	Non PCB	DGA, Dialectric, Water	NO	East, Inside Xfmr Bay Area	Dec '05
10	4000	12 kV/ 2300V	OIL	180	1667092	1184	16.9	Exp Tank	Allis Chalmers	1.2 ppm	DGA, Dialectric, Water	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1939
Waste Water Treatment														
483	1500	4kV/ 480V	OIL	180	M313605TCPA	1500	13.3	NONE	General Electric	Non PCB	DGA, Dialectric, Water	NO	South Side of WWT Bldg.	
482	1500	4kV/ 480V	OIL	180	M313606TCPA	1500	13.3	NONE	General Electric	Non PCB	DGA, Dialectric, Water	NO	South Side of WWT Bldg.	
Barge Unloader Substation														
403	500	4kV/ 480V	OIL	180	950005853	1513		N/A	Cooper Power Systems	Non PCB	DGA, Dialectric, Water	NO	Barge Unloader Substation (Turbine Floor)	2009
404	1000	4kV/ 480V		180	255236	Dry	N/A	N/A		Non PCB	Dry	NO	Sennebogan Power feed	2009
120/208 System - Switchhouse #1														
221	500	12kV/ 208V	**SILICON**	180	3031876	247	81	NONE	Westinghouse	49 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1943
231	500	12kV/ 208V	**SILICON**	180	3031875	247	81	NONE	Westinghouse	43 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1943
Old 480 Volt														
11	750	12 kV/ 480V	OIL	180	7937981	340	58.8	NONE	GE	8.3 ppm 3/07	DGA, Dialectric, Water	NO	East, Inside Xfmr Bay Area	1947
12	2000	12 kV/ 480V	OIL	180	C 864697	635	31.5	NONE	GE	20 ppm	DGA, Dialectric, Water	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1994
T-R sets to receive PCB sampling														
TRANSFORMER NAME	**KVA**	**VOLTAGE**	**XFMR FLUID**	**SAMPLE FREQ (days)**		**GALLONS OF OIL**	**Correction Factor**	**NITROGEN OR BLADDER**	**MANUF.**	**PCB's/ Test Required (Shaded)**	**TYPE OF SAMPLE**	**SPR SWITCH**	**Status**	**Year In-Service**
71A 71G 71H 72A 72F 72G 72H		50KV/400V	**SILICON**	2 yrs				NONE	Research Cotrell	YES	DGA, Dialectric, Water, PCB	NO		
8-5 81A 81C 82A 82B 82C		50KV/400V	**SILICON**	2 yrs				NONE	Research Cotrell	YES	DGA, Dialectric, Water, PCB	NO		

Crawford Station Kentron Room Oil Tank Samples

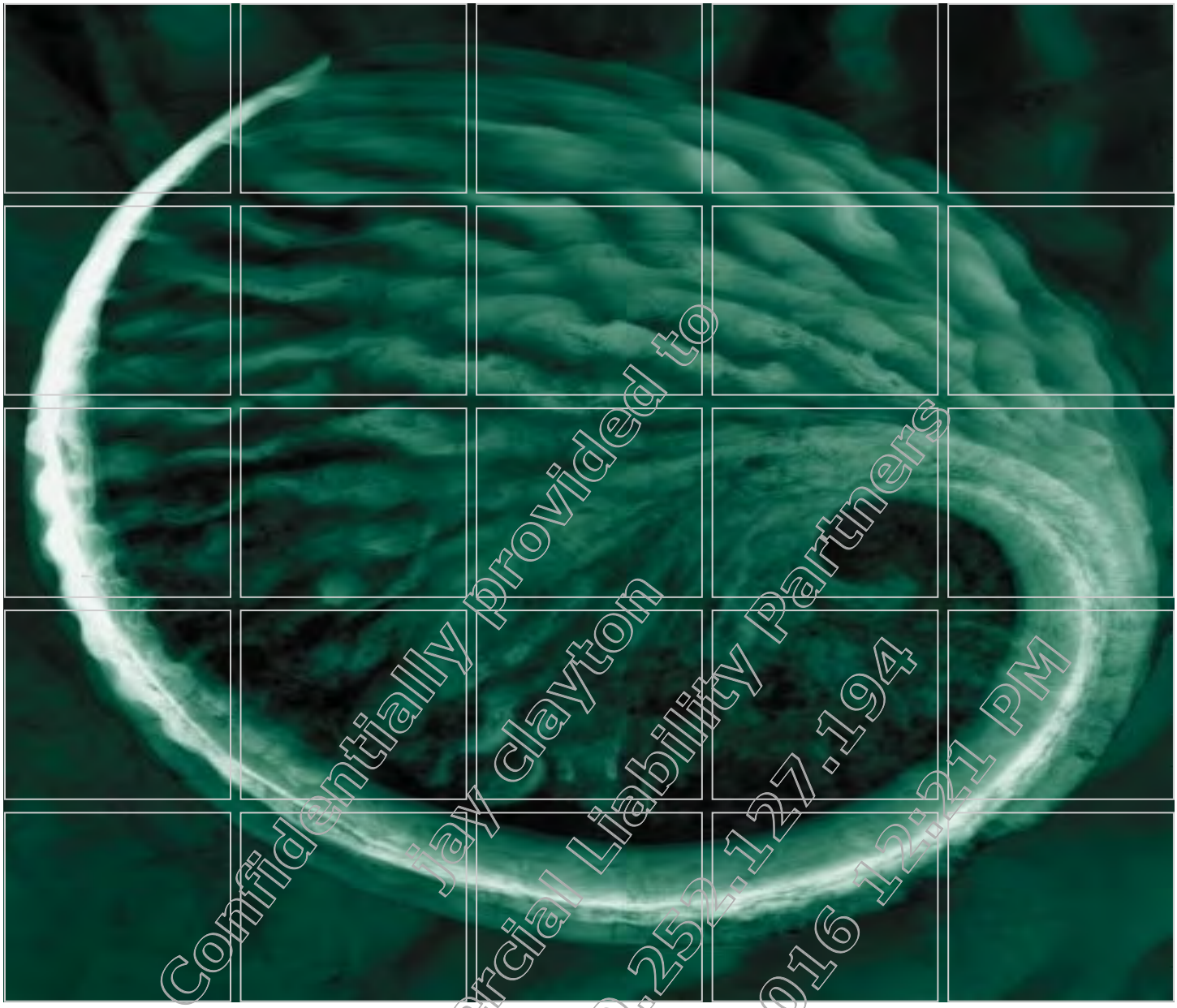
L/ICETEAM/EQUIPHIST/Trans/GenXfmrInfo/TrSpreadsheet//KinotronRoom

Tank # Marked on side in Underlined Yellow*	Sample Date	PCB Concentration	Approximate Tank Dimensions	Approximate Tank Volume* * (gallons)
1	March 15,2002	not detected	35" X 18" X 25"	68
2	March 15,2002	10	35" X 18" X 25"	68
3	January 3, 2002	5	58" Tall X 26"Dia.	133
4	January 3, 2002	12	42" Tall X 32" Dia.	146
5	January 3, 2002	22	45" Tall X 42" Dia.	270
6	January 3, 2002	3	45" Tall X 42" Dia.	270
7	January 3, 2002	9	45" Tall X 42" Dia.	270
8	January 3, 2002	not detected	45" Tall X 42" Dia.	270
9	January 3, 2002	12	59" Tall X 36" Dia.	260
10	January 3, 2002	not detected	60" Tall X 26" Dia.	138
11	January 3, 2002	not detected	57" Tall X 48" Dia.	446
12	January 3, 2002	not detected	46" Tall X 36" Dia.	203
13	January 3, 2002	not detected	34" Tall X 30" Dia.	104
14	January 3, 2002	not detected	36" Tall X 18" Dia.	40
15	January 3, 2002	not detected	62" Tall X 40" Dia.	337
16	January 3, 2002	12	61" Tall X 24" Dia.	120
17	January 3, 2002	not detected	52" Tall X 40" Dia.	283
18	March 15,2002	15	64" Tall X 36' Dia.	282

* Numbers are written on the side of the tanks in yellow paint stick

** Note that the volume calculations are estimates based on exterior dimensions. Most of the actual oil volumes will be much less based on fill levels, transformer core and winding volume, bushing and lead volumes.

Appendix A
ERM Asbestos Survey Report –
Crawford Station, July 2012



Asbestos Survey
Midwest Generation

Midwest Generation
Crawford Plant
3501 South Pulaski
Chicago, Illinois

Project No. 0168420
July 2012

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EXECUTIVE SUMMARY

Midwest Generation, LLC (MWGEN) retained Environmental Resources Management, Inc. (ERM) to perform an asbestos survey at the Midwest Generation Crawford Generating Station located at 3501 South Pulaski, Chicago, Illinois. The facility is comprised of the main plant including a boiler room, turbine room, switch house, and office areas; a crib house, wastewater treatment plant; locomotive house; crusher house, dock junction house, and conveyor structures; fly ash building; and various ancillary outbuildings. The purpose of the asbestos survey was to inspect the facility for the presence of materials suspected of containing asbestos, including an assessment of their condition, friability, and estimated quantity; analyze samples of the suspect asbestos-containing materials (ACMs) to determine their asbestos content; and to comment upon the implications of the presence of such material.

MWGEN provided ERM with an Asbestos Risk Assessment report concerning the boiler room, prepared by Aires, dated March 2011 (Aires report) and a Project Manual, prepared by United Analytical Services, Inc (UAS), dated October 2011, concerning the future asbestos abatement of Units 5 and 6 in the boiler house. A copy of the Aires report is included in Appendix D. The Aires report identified several ACMs, but did not consistently provide quantities of the ACMs. As a result, ERM used the Aires and UAS reports as a resource and did not sample some of the materials that Aires and UAS determined to contain asbestos.

Mr. Ronnie Richmond of MWGEN provided access and escorted ERM through the facility. Mr. Gregory A. Merritt, Illinois Department of Public Health (IDPH) Inspector License No. 100-01759 and Mr. Mathew D. Aigner IDPH Inspector License No. 100-07252 conducted the survey on June 19, 2012 through June 21, 2012 with the assistance of Mr. Michael Belke and Mr. Matthew Porter, both with ERM.

ERM collected and submitted 229 bulk samples of materials suspected of containing asbestos for analysis using Polarized Light Microscopy (PLM) in accordance with the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). EPA considers a material to contain asbestos if at least one sample (of three per homogeneous material) is greater than 1% asbestos. Based on the PLM analytical results, six of the non-friable samples were reanalyzed using the Transmission Electron Microscopy (TEM) method and six of the friable samples were reanalyzed using the Point Counting (PC) method. Based on the Aires report, ERM's inspection, and the PLM, TEM, and PC analytical data, ERM determined that the following suspect ACMs

contains greater than 1% asbestos:

- Plaster materials throughout the switch house and turbine room (approx. 159,100 s.f.);
- 9″x9″ black floor tile and mastic on the 4th floor office area of the switch house (approx. 1,000 s.f.);
- Mastic beneath 1′x1′ dark gray floor tile on the 4th floor office area of the switch house (approx. 3,300 s.f.);
- Mastic beneath 1′x1′ dark tan floor tile on the 4th floor office area of the switch house (approx. 300 s.f.);
- Maroon sheet flooring in room 413 of the switch house (approx. 100 s.f.);
- Thermal systems insulation (including pipe insulation and pipe fitting insulation throughout the switch house, turbine room, boiler house, crib house, and outbuildings (approx. 119,600 l.f.);
- Duct insulation in the 4th floor air handler room in the turbine room (approx. 600 s.f.) and in the 2nd floor locker room in the boiler house (approx. 250 s.f.);
- 9″x9″ green floor tile, 9″x9″ gray floor tile and mastic on the 2nd floor telecom room in the turbine room (approx. 335 s.f.);
- Mastic beneath 1′x1′ white floor tile with tan streaks on the 1st floor shop area of the turbine room (approx. 500 s.f.);
- Transite panels/material located throughout the boiler house, turbine room, switch house, dock junction house, fly ash building, coal conveyor housing and out buildings (approx. 97,400 s.f.);
- Boilers 7 and 8 and related system (ash hopper, expansion tanks and ducts, etc.) insulation (approx. 340,000 s.f.);
- Boilers 5/6 TSI and boiler insulation (approx. 4,680 cubic yards);
- Exterior corrugated Calbestos outside the boiler house (approx. 126,600 s.f.);
- Interior window glazing in the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 78,700 l.f.);
- Exterior window caulk on the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 15,800 l.f.);
- Mastic beneath floor tile in the old security office of the boiler house (approx. 400 s.f.);
- Assumed roofing material on the structures (approx. 275,000 s.f.);
- Assumed cloth wrap on exposed electrical equipment throughout the switch house, crib house, and out buildings (approx 1,700 l.f.);
- Assumed fire doors throughout the facility (approx. 60 doors);
- Assumed flange gaskets throughout the boiler house (unknown quantity); and

- Assumed floor tile and mastic in an inaccessible office area of the boiler house (approx. 1,000 s.f.).

Prior to demolition these materials will need to be removed by appropriately licensed and trained asbestos professionals in accordance with applicable regulations including OSHA (29 CFR 1926.1101), EPA NESHAPS (40 CFR Part 61), and TSCA Title II AHERA/ASHARA (40 CFR Part 763) as well as applicable Illinois and Cook County regulations.

1.0 INTRODUCTION

1.1 PURPOSE

Midwest Generation, LLC. (MWGEN) retained Environmental Resources Management, Inc. (ERM) to perform an Asbestos Survey at the Crawford Generating Station located at 3501 South Pulaski Avenue in Chicago, Illinois ("the Site"). The purpose of the asbestos survey was to inspect the facility for the presence of materials suspected of containing asbestos, including an assessment of their condition, friability, and estimated quantity; analyze samples of the suspect asbestos-containing materials (ACMs) to determine their asbestos content; and to comment upon the implications of the presence of such materials prior to the demolition of the onsite buildings.

1.2 PERSONNEL

Mr. Ronnie Richmond of Midwest Generation provided access and escorted ERM through the facility. Mr. Gregory A. Merritt, Illinois Department of Public Health (IDPH) Inspector License No. 100-01759 and Mr. Mathew D. Aigner IDPH Inspector License No. 100-07252 conducted the survey on June 19, 2012 through June 21, 2012 with the assistance of Mr. Michael Belke and Mr. Matthew Porter, both with ERM. Messrs. Merritt and Aigner remobilized to the facility on July 17, 2012 to quantify the ACMs. Documentation of licensure and certification for Messrs. Merritt and Aigner is included in Appendix D.

1.3 FACILITY DESCRIPTION

The facility consists of approximately 80 acres of land located east of Pulaski Road and north of the Sanitary and Ship Canal at 3501 South Pulaski Road, Chicago, Illinois (Figure 1). The facility is improved with the following main buildings:

- Main Plant – includes the switch house, office areas, turbine room and boiler room totaling approximately 200,000 square feet ;
- An approximately 5,400-square foot crib house;
- An approximately 3,300-square foot locomotive house;

- An approximately 5,000-square foot wastewater treatment plant;
- An approximately 600-square foot guard shack;
- An approximately 2,000-square foot dock junction house;
- An approximately 2,000-square foot crusher house;
- An approximately 5,600-square foot coal handling building;
- An approximately 2,800-square foot tractor shed; and
- Various out buildings including offices, storage buildings, and conveyor structures.

2.0 SCOPE OF WORK

2.1 INSPECTION

The survey consisted of the inspection and sampling of friable and non-friable suspect ACMs. ERM inspected building materials such as surfacing material, flooring, mastics, ceiling tile, thermal insulation, and transite materials.

ERM identified each distinct suspect ACM, defined as a homogeneous sampling area (HSA) based on type, age, color or other construction characteristics. ERM also assessed the condition and friability of each material. In addition, ERM has provided an estimate of the quantity of each material. It should be noted that the estimates of asbestos materials in the buildings was based on material that were readily visible. It should be expected that during demolition activities, additional asbestos materials will be discover inside walls and above solid ceilings.

In addition, the some portions of the inspection were conducted with little or no lighting. As a result, these areas were inspected with use of flashlights and daylight (through windows).

2.2 SAMPLING

During the survey, ERM collected at least three (3) samples for each HSA identified.

Table 1 in Appendix A summarizes the materials sampled by ERM and their respective locations. Figures 2 through 38 in Appendix A show the sample locations and the extent of ACMs identified in connection with the facility.

2.3 ANALYSIS

ERM submitted 229 samples collected during the survey to EMSL Analytical Inc. (EMSL) in Chicago, Illinois. EMSL is an American Industrial Hygiene Association (AIHA) accredited laboratory that successfully participates in the National Institute of Standards & Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos bulk sample analysis.

EMSL performed analysis using Polarized Light Microscopy (PLM) in accordance with the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). EPA considers a material to contain asbestos if at least one sample of the material is greater than 1% asbestos. ERM utilized the "positive stop" analysis procedure for samples collected for each HSA as recommended in the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). For any HSA where the first sample was determined to be positive for asbestos, then the laboratory did not analyze the remaining samples in that HSA, and the HSA is asbestos containing. Based on the PLM analytical results, six of the non-friable samples were reanalyzed using the Transmission Electron Microscopy (TEM) method and six of the friable samples were reanalyzed using the Point Counting (PC) method.

A copy of the laboratory analytical results is included in Appendix C.

Table 2 summarizes the materials that tested to be positive for asbestos. Photos of the confirmed ACMs are included in Appendix B.

TABLE 2
SUMMARY OF FINDINGS

Sample No.	*Material Description*	*Location*	*Condition (G/F/P)*	*Friable (Y/N)*	*Asbestos Content*	*Estimated Quantity*
CR-006 CR-007 CR-010	Plaster Materials	Switch House and Turbine Room (1st and 2nd Floors)	F	Y	1.75% Chrysotile 4% Chrysotile 4% Chrysotile	159,100 s.f.
CR-014	9"x9" Black Floor Tile	4th Floor Switch House Office	G	N	4% Chrysotile (tile) 7% Chrysotile (mastic)	1,000 s.f.
CR-023	1'x1' Dark Gray Floor Tile	4th Floor Switch House Office	G	N	ND (tile) 2% Chrysotile (mastic)	3,300 s.f.
CR-035 CR-053 CR-082 CR-085 CR-107	Thermal System Insulation	Switch House, Turbine Room, Boiler Room, Turbine Room, and Crib House,	F	Y	10% - 60% Chrysotile	119,600 l.f.
CR-062 CR-187	Duct Insulation	4th Floor Air Handler Room Boiler House – 2nd Floor Locker Room	F	Y	50% Chrysotile	850 s.f.
CR-074	9"x9" Green Floor Tile	Turbine Building – 2nd Floor Telecom Room	F	N	5% Chrysotile	260 s.f.
CR-077	9"x9" Gray Floor Tile	Turbine Building – 2nd Floor Telecom Room	F	N	7% Chrysotile (tile) 2% Chrysotile (mastic)	75 s.f.
CR-088	1'x1' Dark Tan Floor Tile w/Brown Streaks	Switch House (Assembly Room)	G	N	3% Chrysotile (mastic)	300 s.f.
CR-101	1'x1' White Floor Tile w/Tan Streaks	Turbine Room – 1st Floor	G	N	2% Chrysotile (mastic)	500 s.f.
CR-119	Maroon Sheet Flooring	Switch House – Room 413	G	N	20% Chrysotile	100 s.f.
CR-125 CR-173	Transite Panels and Materials	Inside Switch House, Turbine Room, Crib House, and Out Buildings and Outside Main Plant, Dock Junction House, Crusher House, Conveyor Structures, and Fly Ash Building	F	N	25%-30% Chrysotile	97,400 s.f.
CR-148	Boiler Insulation	Boiler Room (5/6 Boiler)	P	Y	20% Chrysotile 20% Amosite	4,680 c.y.
CR-151	Boiler Insulation	Boiler Room – Boiler 7	F	Y	4% Chrysotile	130,000 s.f.
CR-154	Boiler Insulation	Boiler Room – Boiler 8	G	Y	10% Chrysotile	157,000 s.f.
CR-157	Ash Hopper Insulation	Boiler Room – Boiler 8	G	Y	50% Chrysotile	9,000 s.f.
CR-160	Exterior Corrugated Galbestos	Main Plant Exterior	P	Y	30% Chrysotile	126,600 s.f.
CR-170	Condenser Housing Insulation	Basement of Turbine Room	G	Y	10% Chrysotile	9,000 s.f.

Sample No.	*Material Description*	*Location*	*Condition (G/F/P)*	*Friable (Y/N)*	*Asbestos Content*	*Estimated Quantity*
CR-177	Interior Window Glazing	Boiler Room, Turbine Room, Switch House, Fly Ash Building, Crusher/Conveyor Buildings, Locomotive Building, and Other Out Buildings	F	Y	3% Chrysotile*	78,700 l.f.
CR-200	Black Mastic Beneath Tile	Boiler House – Old Security Office	G	N	2% Chrysotile	400 s.f.
CR-208 CR-220	Exterior Window Caulk	Boiler Room, Turbine Room, Switch House, Fly Ash Building, Crusher/Conveyor Buildings, Locomotive Building, and Other Out Buildings	F	Y	3% to 3.25% Chrysotile*	15,800 l.f.

*The laboratory analytical results for the exterior window caulk and interior window putty appeared to be inconsistent from building to building. ERM understands that the boiler room, switch house, turbine room, and locomotive building were constructed in approximately the same time period. Based on appearance, texture, and the limited amount of samples collected, ERM has assumed that the window caulk and putty on these structures are asbestos containing as evidenced by the analytical results for samples CR-208, CR-220, and CR-177, respectively.

"HSA" indicates Homogeneous Sampling Area
"G/F/P" indicates the materials condition as "good", "fair" or "poor".
"Y/N" indicates "yes" or "no".
"NA" indicates "Not Applicable".
"ND" indicates "Not Detected".
"c.y." indicates "cubic yards".
"s.f." indicates "square feet".
"l.f." indicates "linear feet".
"ea" indicates "each".

4.1 CONCLUSIONS

Based on the results of this survey, the following materials contain or are assumed to contain greater than 1% asbestos:

- Plaster materials throughout the switch house and turbine room (approx. 159,100 s.f.);
- 9"x9" black floor tile and mastic on the 4th floor office area of the switch house (approx. 1,000 s.f.);
- Mastic beneath 1'x1' dark gray floor tile on the 4th floor office area of the switch house (approx. 3,300 s.f.);
- Mastic beneath 1'x1' dark tan floor tile on the 4th floor office area of the switch house (approx. 300 s.f.);
- Maroon sheet flooring in room 413 of the switch house (approx. 100 s.f.);
- Thermal systems insulation (including pipe insulation and pipe fitting insulation throughout the switch house, turbine room, boiler house, crib house, and outbuildings (approx. 119,600 l.f.);
- Duct insulation in the 4th floor air handler room in the turbine room (approx. 600 s.f.) and in the 2nd floor locker room in the boiler house (approx. 250 s.f.);
- 9"x9" green floor tile, 9"x9" gray floor tile and mastic on the 2nd floor telecom room in the turbine room (approx. 335 s.f.);
- Mastic beneath 1'x1' white floor tile with tan streaks on the 1st floor shop area of the turbine room (approx. 500 s.f.);
- Transite panels/material located throughout the boiler house, turbine room, switch house, dock junction house, fly ash building, coal conveyor housing and out buildings (approx. 97,400 s.f.);
- Boilers 7 and 8 and related system (ash hopper, expansion tanks and ducts, etc.) insulation (approx. 340,000 s.f.);
- Boilers 5/6 TSI and boiler insulation (approx. 4,680 cubic yards);
- Exterior corrugated Galbestos outside the boiler house (approx. 126,600 s.f.);
- Interior window glazing in the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 78,700 l.f.);
- Exterior window caulk on the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 15,800 l.f.);

- Mastic beneath floor tile in the old security office of the boiler house (approx. 400 s.f.);
- Assumed roofing material on the structures (approx. 275,000 s.f.);
- Assumed cloth wrap on exposed electrical equipment throughout the switch house, crib house, and out buildings (approx 1,700 l.f.);
- Assumed fire doors throughout the facility (approx. 60 doors);
- Assumed flange gaskets throughout the boiler house (unknown quantity); and
- Assumed floor tile and mastic in an inaccessible office area of the boiler house (approx. 1,000 s.f.).

4.2 RECOMMENDATIONS

4.2.1 General Recommendations

Prior to demolition these materials will need to be removed by appropriately licensed and trained asbestos professionals in accordance with applicable regulations including OSHA (29 CFR 1926.1101), EPA NESHAPS (40 CFR Part 61), and TSCA Title II AHERA/ASHARA (40 CFR Part 763) as well as applicable Illinois and Cook County regulations.

5.0 LIMITATIONS

5.1 LIMITATIONS

A combination of visual inspection of repetitive structures and confirmatory sampling, as required, was undertaken. However, it was not reasonably practicable to sample every item. ERM collected bulk samples of suspect ACMs at points that appeared to be representative locations. Consequently, some items not found to contain asbestos may comprise asbestos materials outside the immediate location of the sample point.

It may not be possible to expose the entire fabric of the building and their contents and therefore some hazards may be obscured. Examples of this could include hidden voids/risers, bricked up voids/risers, fuses, switchgear and live electrical apparatus, gaskets for pipes etc. Although ERM has provided an accurate amount of asbestos materials in the buildings, it is common to encounter additional asbestos materials inside walls and above solid ceilings during demolition.

In addition, portions of the inspection were conducted with little or no lighting. As a result, these portions of the inspection were conducted with use of flashlights and daylight (through windows).

Materials assumed to contain asbestos include floor tile and mastic in an inaccessible office area; roofing materials; cloth wrap on electrical equipment, fire doors, and flange gaskets. These materials were not sampled due to safety concerns and have therefore been assumed by ERM to contain asbestos.

5.2 SPECIAL TERMS AND CONDITIONS

ERM gathered and/or prepared this report and all field data, notes, and laboratory test data in accordance with the agreed-upon scope of work and generally accepted engineering and scientific practices in effect at the time of ERM's investigation of the site.

The statements, conclusions and opinions contained in this report only are intended to give approximations of the environmental conditions of the site limited to the particular environmental issues actually targeted by ERM's investigation, as agreed upon by Midwest Generation and ERM.

5.3 USER RELIANCE

This report was prepared for the sole and exclusive benefit and use of Midwest Generation LLC. Notwithstanding delivery of this report by ERM or client to any third party, any copy of this report provided to a third part is provided for informational purposes only without the right to rely. Reliance on this report by any other person(s) or entity(ies) is strictly at their own risk, and ERM makes no warranties to person(s) or entity(ies), other than client who use the information provided in this report. If other person(s) or entity(ies) wish to rely upon this report (i.e., lenders, mortgagers, insurance companies, or other parties to a transaction), ERM will require that such parties agree in writing to ERM's contract terms.

Appendix A
Table 1 and Figures

TABLE 1
MIDWEST GENERATION - CRAWFORD GENERATING STATION
CHICAGO, ILLINOIS
PAGE 1 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
1	CR-001	405	2' x 4' White Ceiling Tile w/ Dots and Fissures	Switch House - 4th Floor Office	G	Y	N	N/A	N/A
	CR-002	4th Floor Admin Office							
	CR-003	Room adjacent to 4th Floor Admin Office							
2	CR-004	405	Plaster Material	Switch House and Turbine Building	F	Y	CR-006 -<1% Chrysotile CR-010 - 4% Chrysotile	CR-006 - 1.75% Chrysotile CR-007- 4.00% Chrysotile	N/A
	CR-005	414							
	CR-006	Switch House 2nd Floor							
	CR-007	Switch House 3rd Floor							
	CR-008	Switch House 4th Floor Adjacent to Air Handler Room							
	CR-009	Turbine Building - 2nd Floor Stairwell adjacent to Engine Room							
	CR-010	Switch House 1st Floor Gen Room							
3	CR-011	405	1'x1' White Ceiling Tile	Switch House - 4th Floor Office	G	Y	N	N/A	N/A
	CR-012	405							
	CR-013	405							
4	CR-014	405	9" x 9" Black Floor Tile	Switch House - 4th Floor Office	F	N	Tile - 4% Chryostile Mastic - 7% Chrysotile	N/A	N/A
	CR-015	405							
	CR-016	405							
5	CR-017	405	2' x 4' White Ceiling Tile w/ Dots and Specs	Switch House - 4th Floor Office	G	Y	N	N/A	N/A
	CR-018	4th Floor Room adjacent to Admin Office							
	CR-019	4th Floor Men's Room							
6	CR-020	4th Floor Hallway outside Men's Room	Terrazzo Flooring	Switch House - 4th Floor	G	N	N	N/A	N/A
	CR-021	4th Floor Men's Room							
	CR-022	Outside Room 413							

TABLE 1
MIDWEST GENERATION - CRAWFORD GENERATING STATION
CHICAGO, ILLINOIS
PAGE 2 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
7	CR-023	4th Floor Hallway outside 405	1' x 1' Dark Gray Floor Tile w/ Tan Specs	Switch House - 4th Floor	G	N	Tile - ND Mastic 2% Chrysotile	N/A	N/A
	CR-024	4th Floor outside Elevator							
	CR-025	4th Floor Hallway outside 413							
8	CR-026	Switch House 4th Floor Stairwell	Red and Orange Stair Tread	Switch House and Turbine Room	G	N	N	N/A	N/A
	CR-027	Switch House 4th Floor Air Handler Room							
	CR-028	Turbine Building - 4th Floor Crossover							
9	CR-029	4th Floor Admin Office	1' x1' Light Blue Floor Tile	Switch House - 4th Floor Office	G	N	N	N/A	N
	CR-030	4th Floor Admin Office							
	CR-031	4th Floor Admin Office							
10	CR-032	4th Floor Admin Office	6" Vinyl Baseboard	Switch House - 4th Floor Office	G	N	N	N/A	N/A
	CR-033	4th Floor Admin Office							
	CR-034	4th Floor Admin Office							
11	CR-035	Switch House 4th Floor Room w/ couch	3" Thermal Pipe Insulation	Switch House and Turbine Building	F	Y	25% Chrysotile	N/A	N/A
	CR-036	Switch House 4th Floor Stairwell adjacent to Fan Room							
	CR-037	Turbine Building - 2nd Floor Maintenance Training Room							

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
12	CR-038	Switch House 4th Floor Room w/ couch	Flooring Under Carpet	Switch House - 4th Floor Office	F	N	N	N/A	N/A
	CR-039	Switch House 4th Floor Room w/ couch							
	CR-040	Switch House 4th Floor Room w/ couch							
13	CR-041	4th Floor Management Classroom	2' x 2' White Popcorn Ceiling Tile	Switch House - 4th Floor Office	F	Y	N	N/A	N/A
	CR-042	4th Floor Management Classroom							
	CR-043	4th Floor Management Classroom							
14	CR-044	4th Floor Management Classroom	3" Dark Tan Vinyl Baseboard	Switch House - 4th Floor Office	G	N	N	N/A	N/A
	CR-045	4th Floor Management Classroom							
	CR-046	4th Floor Management Classroom							
15	CR-047	413	2' x 4' White Ceiling Tile w/ Small and Large Dots	Switch House - 4th Floor Office	G	Y	N	N/A	N/A
	CR-048	413							
	CR-049	413							
16	CR-050	415	2' x 2' White Ceiling Tile w/ Fissures	Switch House - 4th Floor Office	G	Y	N	N/A	N/A
	CR-051	415							
	CR-052	415							
17	CR-053	Switch House 4th Floor Print Room	4" Thermal Pipe Insulation	Switch House and Turbine Building	F	Y	50% Chrysotile	N/A	N/A
	CR-054	Switch House 3rd Floor Staircase							
	CR-055	Turbine Building - 1st Floor outside Generator Room							

TABLE 1
MIDWEST GENERATION - CRAWFORD GENERATING STATION
CHICAGO, ILLINOIS
PAGE 4 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
18	CR-056	Switch House 4th Floor Print Room	Interior Window Putty	Switch House and Turbine Building	P	Y	N	N/A	N/A
	CR-057	Switch House 3rd Floor Staircase							
	CR-058	Turbine Building - 2nd Floor Maintenance Training Room							
19	CR-059	414	1'x1' Tan Floor Tile w/ Specs	Switch House - 4th Floor Office	G	N	N	N/A	N
	CR-060	414							
	CR-061	414							
20	CR-062	4th Floor Air Handler Room	Duct Insulation	Switch House	G	Y	50% Chrysotile	N/A	N/A
	CR-063	4th Floor Air Handler Room							
	CR-064	4th Floor Air Handler Room							
21	CR-065	Switch House 4th Floor Air Handler Room	Black Vibration Dampening Cloth	Switch House and Turbine Building	G	N	N	N/A	N/A
	CR-066	Turbine Room - 2nd Floor Room 18							
	CR-067	Turbine Room - 1st Floor TR11							
22	CR-068	Turbine Room - 1st Floor	3" Brown Vinyl Baseboard	Turbine Room - 1st Floor	G	N	N	N/A	N/A
	CR-069	Turbine Room - 1st Floor							
	CR-070	Turbine Room - 1st Floor							
23	CR-071	2nd Floor - Reactor Fan Room	Tan Vibration Dampening Cloth	Turbine Room	F	Y	N	N/A	N/A
	CR-072	2nd Floor - Reactor Fan Room							
	CR-073	2nd Floor - Reactor Fan Room							

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
24	CR-074	2nd Floor - Telecom Room	9" x 9" Green Floor Tile	Turbine Room	F	N	5% Chrysotile	N/A	N/A
	CR-075	2nd Floor - Telecom Room							
	CR-076	2nd Floor - Telecom Room							
25	CR-077	2nd Floor - Telecom Room	9" x 9" Gray Floor Tile	Turbine Room	F	N	Tile - 7% Chrysotile Mastic 2% Chrysotile	N/A	N/A
	CR-078	2nd Floor - Telecom Room							
	CR-079	2nd Floor - Telecom Room							
26	CR-080	Switch House 4th Floor Admin Office	Drywall System	Switch House and Turbine Room	G	Y	N	N/A	N/A
	CR-081	Turbine Building - 2nd Floor Room 8/9							
	CR-081A	Turbine Building - 2nd Floor Room 11							
27	CR-082	Basement	Thermal Pipe Insulation	Turbine Room	F	Y	10% Chrysotile	N/A	N/A
	CR-083	Basement							
	CR-084	Basement							
28	CR-085	Switch House 4th Floor Air Handler Room	Pipe Fitting Insulation	Switch House and Turbine Room	F	Y	30% Chrysotile	N/A	N/A
	CR-086	Switch House 3rd Floor							
	CR-087	Basement							
29	CR-088	Store Room/ Assembly Room	Dark Tan Floor Tile w/ Brown and Tan Streaks	Switch House	G	N	Tile - ND Mastic 3% Chrysotile	N/A	N/A
	CR-089	Store Room/ Assembly Room							
	CR-090	Store Room/ Assembly Room							

TABLE 1
MIDWEST GENERATION - CRAWFORD GENERATING STATION
CHICAGO, ILLINOIS
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HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
30	CR-091	Columns in Basement	Spray-On Insulation	Basement	G	Y	N	N/A	N/A
	CR-092	Columns in Basement							
	CR-093	Columns in Basement							
	CR-094	Columns in Basement							
	CR-095	Columns in Basement							
	CR-096	Columns in Basement							
	CR-097	Columns in Basement							
31	CR-098	1st Floor Test Lab	Black Vinyl Baseboard and Mastic	Turbine Room	G	N	N	N/A	N/A
	CR-099	1st Floor Test Lab							
	CR-100	1st Floor Test Lab							
32	CR-101	1st Floor	1' x 1' White Floor Tile w/ Tan Streaks and	Turbine Room	G	N	Tile - ND Mastic 2% Chrysotile	N/A	N/A
	CR-102	1st Floor							
	CR-103	1st Floor							
33	CR-104	1st Floor South Wall	Exterior Window Caulk	Switch House	P	Y	<1% Chrysotile	1.00%	N/A
	CR-105	1st Floor South Wall							
	CR-106	1st Floor South Wall							
34	CR-107	Basement	Thermal Insulation	Switch House and Turbine Room	F	Y	50% Chrysotile	N/A	N/A
	CR-108	Basement							
	CR-109	Basement							
35	CR-110	2nd Floor Office	1' x 1' Brown and Tan Floor Tile w/ Mastic	Turbine Room	G	N	N	N/A	N
	CR-111	2nd Floor Office							
	CR-112	2nd Floor Office							
36	CR-113	2nd Floor Office	Maroon Vinyl Baseboard and Mastic	Turbine Room	G	N	N	N/A	N/A
	CR-114	2nd Floor Office							
	CR-115	2nd Floor Office							
37	CR-116	2nd Floor - Room 15	Concrete Sub Floor	Turbine Room	G	N	N	N/A	N/A
	CR-117	2nd Floor - Room 15							
	CR-118	2nd Floor - Room 15							
38	CR-119	Room 413	Maroon Sheet Flooring	Switch House	F	N	20% Chrysotile	N/A	N/A
	CR-120	Room 413							
	CR-121	Room 413							
39	CR-122	2nd Floor - Room 8/9	2' x 2' White Ceiling Tile w/Large and Small Dots	Turbine Room	G	Y	N	N/A	N/A
	CR-123	2nd Floor - Room 8/9							
	CR-124	2nd Floor - Room 11							
40	CR-125	4th Floor Switch Rooms	Transite Panels	Switch House	F	N	30% Chrysotile	N/A	N/A
	CR-126	3rd Floor Switch Rooms							
	CR-127	2nd Floor Switch Rooms							

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
41	CR-128	4th Floor Switch Rooms	Cement Wall Covering	Switch House	G	N	N	N/A	N/A
	CR-129	4th Floor Switch Rooms							
	CR-130	2nd Floor Switch Rooms							
	CR-131	2nd Floor Switch Rooms							
	CR-132	2nd Floor Switch Rooms							
	CR-133	1st Floor Switch Rooms							
	CR-134	1st Floor Switch Rooms							
42	CR-135	Mezzanine	Spray-On Insulation	Crib House	F	Y	N	N/A	N/A
	CR-136	Mezzanine							
	CR-137	Mezzanine							
	CR-138	Mezzanine							
	CR-139	1st Floor							
	CR-140	1st Floor							
	CR-141	1st Floor							
43	CR-142	Mezzanine	Interior Window Putty	Crib House	P	Y	N	N/A	N/A
	CR-143	Mezzanine							
	CR-144	Mezzanine							
44	CR-145	Mezzanine	Exterior Window Caulk	Crib House	P	Y	N	N/A	N/A
	CR-146	Mezzanine							
	CR-147	Mezzanine							
45	CR-148	Boiler 6-4	Boiler Insulation	Boiler Room	G	Y	20% Chrysotile 20% Amosite	N/A	N/A
	CR-149	Boiler 6-5							
	CR-150	Boiler 5-3							
46	CR-151	6th Floor	Boiler Insulation Boiler 7	Boiler Room	G	Y	4% Chrysotile	N/A	N/A
	CR-152	6th Floor							
	CR-153	6th Floor							
47	CR-154	Boiler 8 4th Level	Boiler Insulation Boiler 8	Boiler Room	G	Y	10% Chrysotile	N/A	N/A
	CR-155	Boiler 8 4th Level							
	CR-156	Boiler 8 4th Level							
48	CR-157	Boiler 8 4th Level Mezzanine	Ash Hopper Insulation	Boiler Room	G	Y	50% Chrysotile	N/A	N/A
	CR-158	Boiler 8 4th Level Mezzanine							
	CR-159	Boiler 8 4th Level Mezzanine							

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
49	CR-160	SEC Turbine Room	Red Corrugated Galbestos	Exterior	P	Y	30% Chrysotile	N/A	N/A
	CR-161	NEC Boiler Room							
	CR-162	NEC Boiler Room							
	CR-163	North Center Fan Room							
	CR-164	Level 8 Elevator							
	CR-165	Level 8 Elevator							
	CR-166	Level 8 Elevator							
50	CR-167	Control Room	2' x 4' White Ceiling Tile w/ Small Dots and Fissures	Control Room	F	Y	N	N/A	N/A
	CR-168	Control Room							
	CR-169	Control Room							
51	CR-170	Basement	Condenser Housing Insulation	Turbine Room	F	Y	10% Chrysotile	N/A	N/A
	CR-171	Basement							
	CR-172	Basement							
52	CR-173	East Shed	Gray Transite Panel	Level 2 Fan Floor	F	N	25% Chrysotile	N/A	N/A
	CR-174	West Shed							
	CR-175	West Shed							
53	CR-176	L2 Fan Floor	Interior Window Glazing	Boiler Room	P	Y	3% Chrysotile	1.50%	N/A
	CR-177	NW Stairs							
	CR-178	NW Stairs							
54	CR-179	Boiler House	Plaster	Boiler Room	F	Y	N	N/A	N/A
	CR-180	Boiler House							
	CR-181	Boiler House							
	CR-182	Boiler House							
	CR-183	Boiler House							
	CR-184	Boiler House							
	CR-185	Boiler House							
	CR-186	Boiler House							
55	CR-187	2nd Floor Locker Room	Duct Insulation	Boiler Room	G	Y	50% Chrysotile	N/A	N/A
	CR-188	2nd Floor Locker Room							
	CR-189	2nd Floor Locker Room							

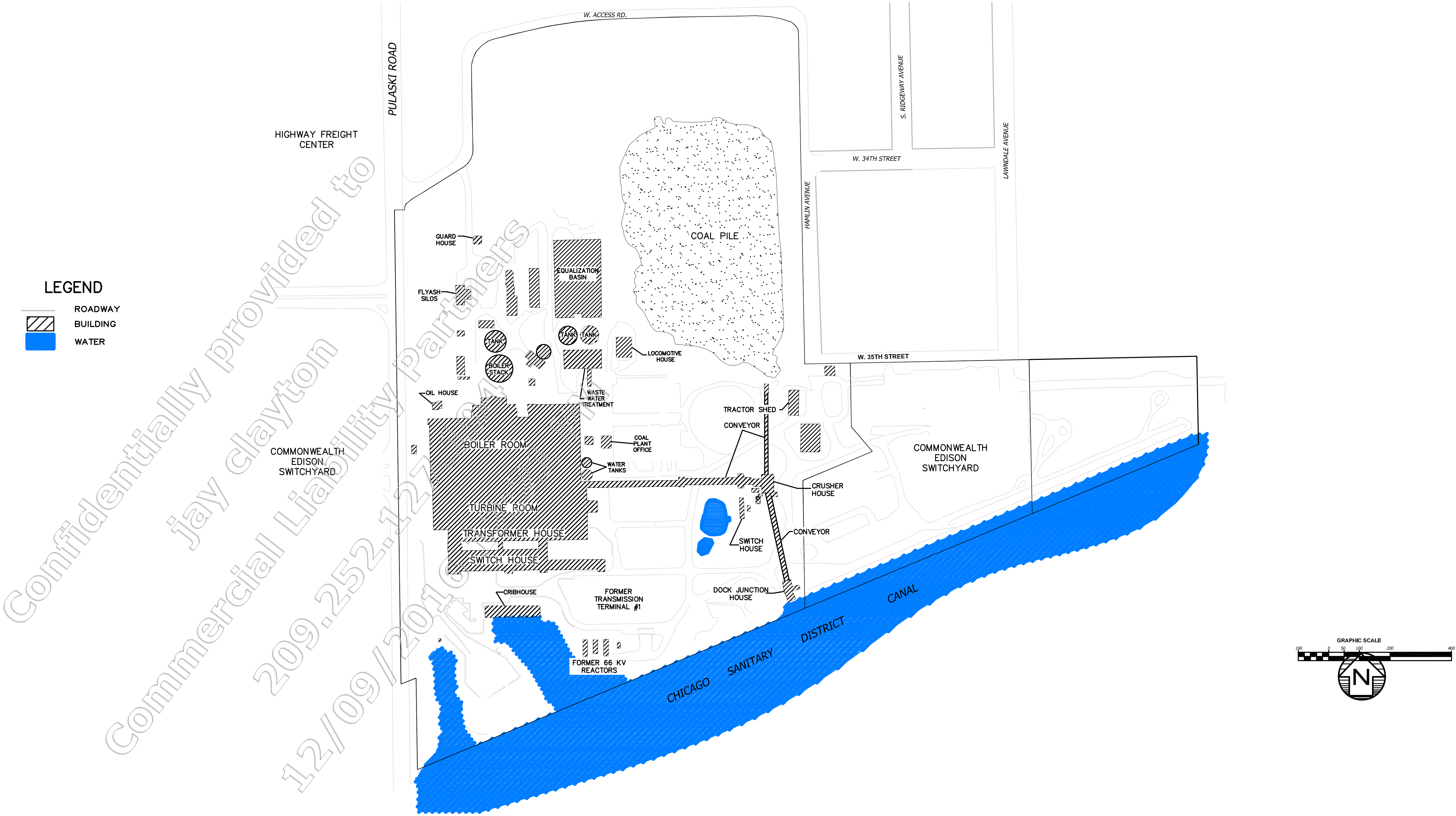
HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
56	CR-190	4th Floor Weight Room	1' x 1' Gray Floor Tile w/ Black Mastic	Boiler Room	G	N	N	N/A	N
	CR-191	4th Floor Weight Room							
	CR-192	4th Floor Weight Room							
57	CR-193	4th Floor Weight Room	Drywall System	Boiler Room	G	Y	N	N/A	N/A
	CR-194	4th Floor Weight Room							
	CR-195	4th Floor Weight Room							
58	CR-196	4th Floor Weight Room	2' x 4' White Ceiling Tile w/ Small Dots and Small Fissures	Boiler Room	G	Y	N	N/A	N/A
	CR-197	4th Floor Weight Room							
	CR-198	4th Floor Weight Room							
59	CR-199	Old Security Office	1' x 1' Gray Floor Tile over 1' x 1' Brown Floor Tile and Mastic	Boiler Room	G	N	Tile - ND Mastic 2% Chrysotile	N/A	N/A
	CR-200	Old Security Office							
	CR-201	Old Security Office							
60	CR-202	Store Room	1' x 1' Beige Floor Tile w/ White Specks and Mastic	Boiler Room	G	N	N	N/A	N
	CR-203	Store Room							
	CR-204	Store Room							
61	CR-205	Store Room	2' x 4' White Ceiling Tile w/ Dots and Slashes	Boiler Room	G	Y	N	N/A	N/A
	CR-206	Store Room							
	CR-207	Store Room							
62	CR-208	Boiler House	Window Caulk	Exterior Boiler Room	F	N	3% Chrysotile	2.00%	N/A
	CR-209	Boiler House							
	CR-210	Boiler House							
63	CR-211	Level 6	Vibration Dampener Gasket	Boiler Room	G	Y	N	N/A	N/A
	CR-212	Level 6							
	CR-213	Level 6							
64	CR-214	Sodium Hydroxide Tank	Tank Insulation	WWTP	G	Y	N	N/A	N/A
	CR-215	Sodium Hydroxide Tank							
	CR-216	Sodium Hydroxide Tank							

TABLE 1
MIDWEST GENERATION - CRAWFORD GENERATING STATION
CHICAGO, ILLINOIS
PAGE 10 OF 10

HSA No.	*Sample Number*	*Sample Locations*	*Material Description*	*Material Location*	*Condition (G/F/P)*	*Friable (Y/N)*	*ACM (Y/N) (PLM)*	*ACM (Y/N) (Point Count)*	*ACM (Y/N) TEM*
65	CR-217	Interior Window	Interior Window Caulk	WWTP	p	Y	N	N/A	N/A
	CR-218	Interior Window							
	CR-219	Interior Window							
66	CR-220	Western Exterior Wall	Exterior Window Caulk	Locomotive House	P	Y	3% Chrysotile	3.25%	N/A
	CR-221	Western Exterior Wall							
	CR-222	Western Exterior Wall							
67	CR-223	Coal Plant	2' x 2' White Ceiling Tile w/ Dots and Specs	Coal Plant Office	G	Y	N	N/A	N/A
	CR-224	Coal Plant							
	CR-225	Coal Plant							
68	CR-226	Guard Shack	1' x 1' Gray Floor Tile	Guard Shack	G	N	N	N/A	N
	CR-227	Guard Shack							
	CR-228	Guard Shack							

"HSA" indicates Homogeneous Sampling Area.
"G/F/P" indicates the materials condition as "good", "fair" or "poor".
"N/A" indicates "Not Analyzed"
"Y/N" indicates "yes" or "no".
"PLM" indicates Polarized Light Microscopy (EPA 600/R-93/116)
"Point Count" indicates Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantification using 400 Point Count Procedure
"TEM" indicates Transmission Electron Microscopy (EPA 600/R-93/116 Section 2.5.5.1)

SITE LAYOUT LOCATION MAP



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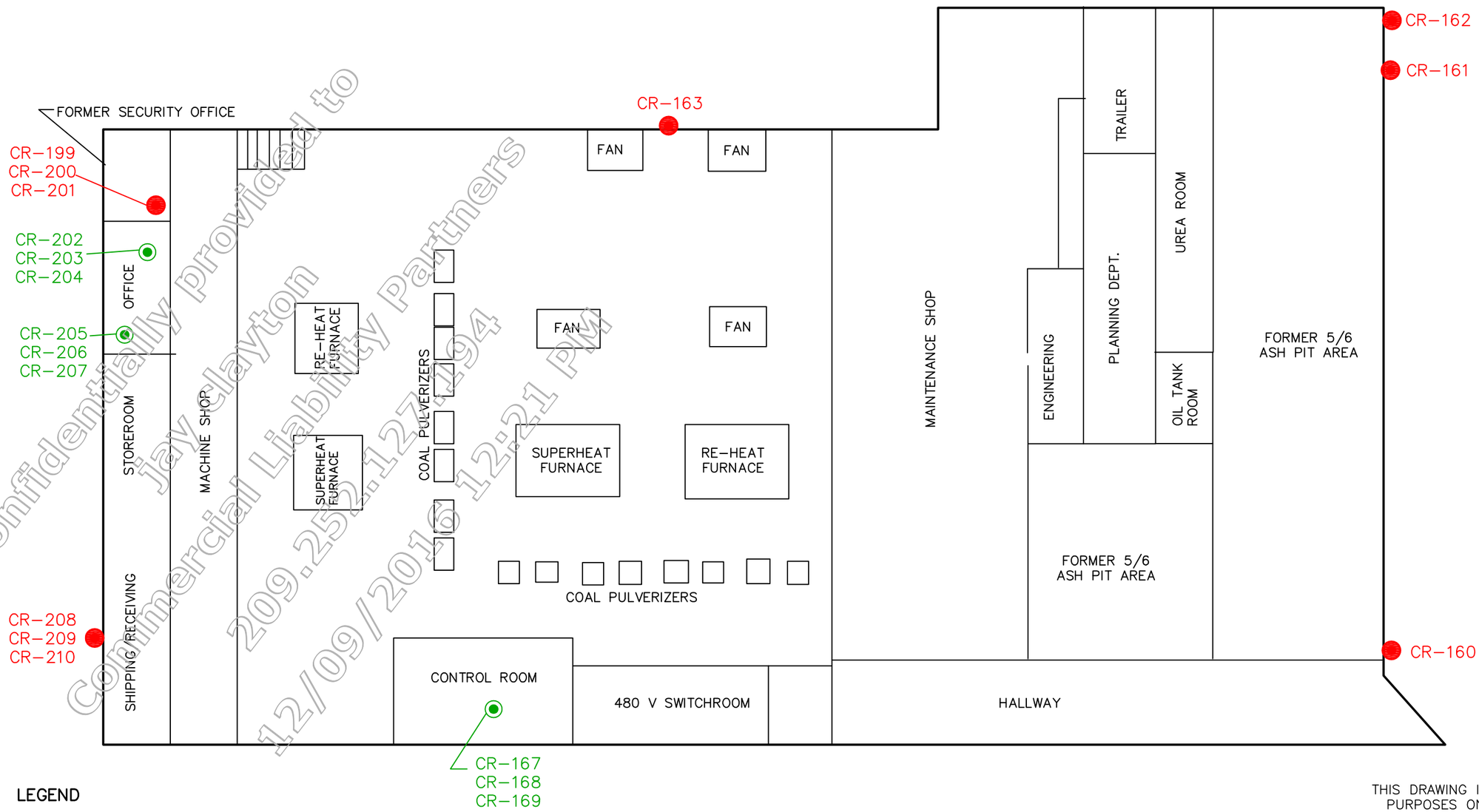
Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 8/1/12		Environmental Resources Management	FIGURE 1

ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 1 (10')



LEGEND

CR-217 NON-ASBESTOS SAMPLE LOCATION

CR-217 CONFIRMED ASBESTOS SAMPLE LOCATION

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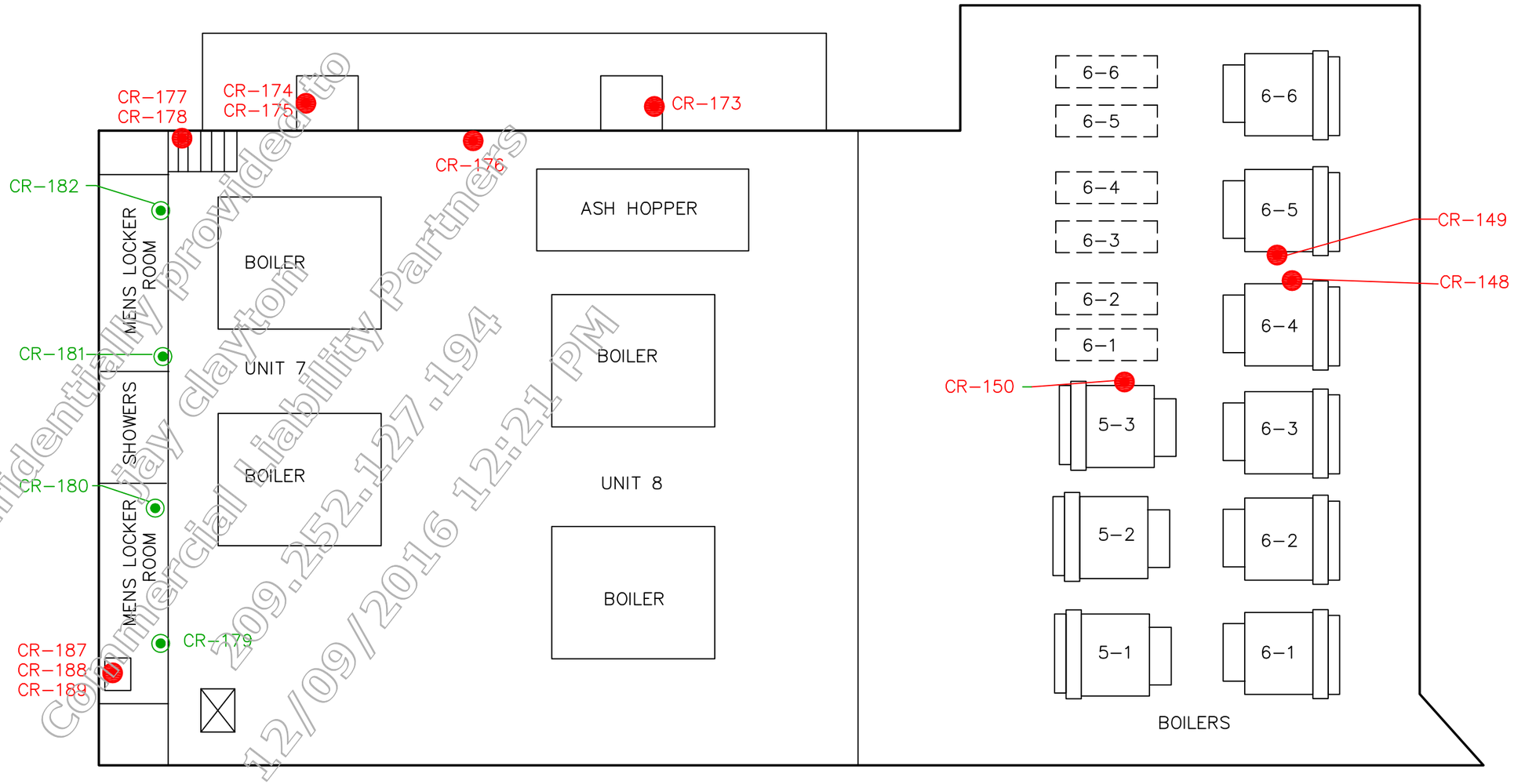
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 2

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 2 (41')



N

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LEGEND

CR-217 NON-ASBESTOS SAMPLE LOCATION

CR-217 CONFIRMED ASBESTOS SAMPLE LOCATION

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CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 3

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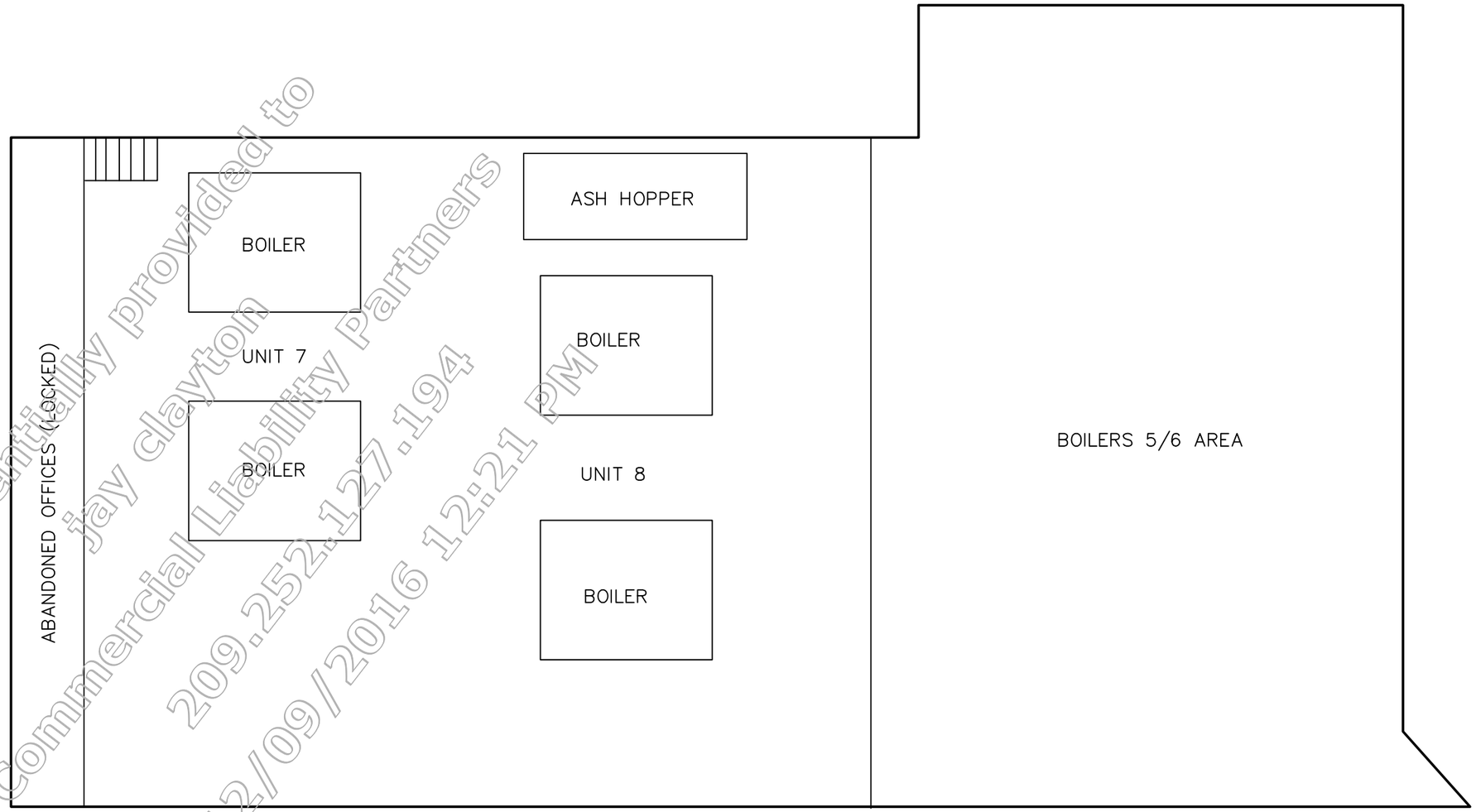
ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 3 (70' 6")



LEGEND

CR–228 ◉ NON–ASBESTOS SAMPLE LOCATION

N

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Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 4

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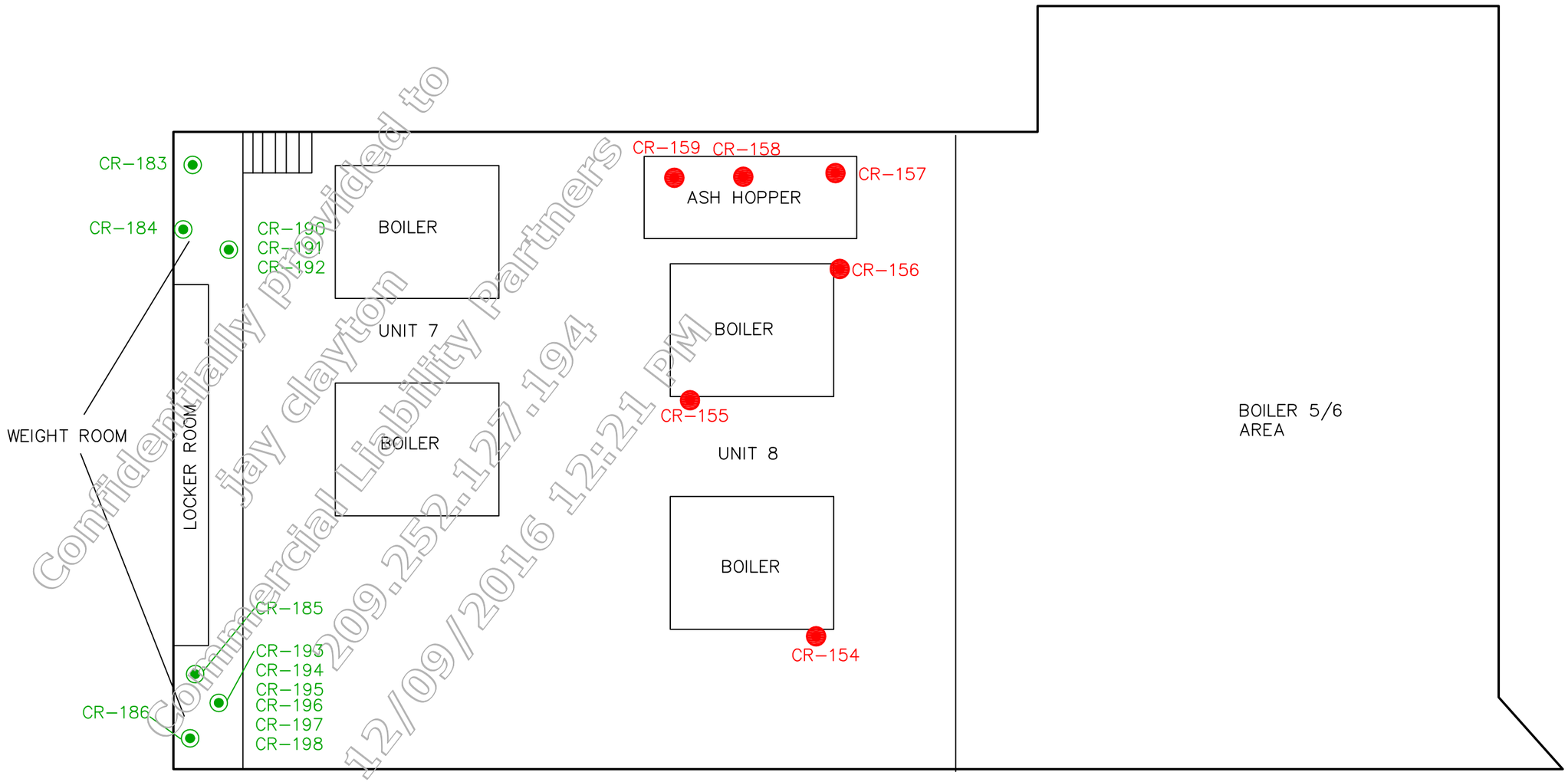
ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 4 (88' 6")



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LEGEND

CR–217 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

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CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 5

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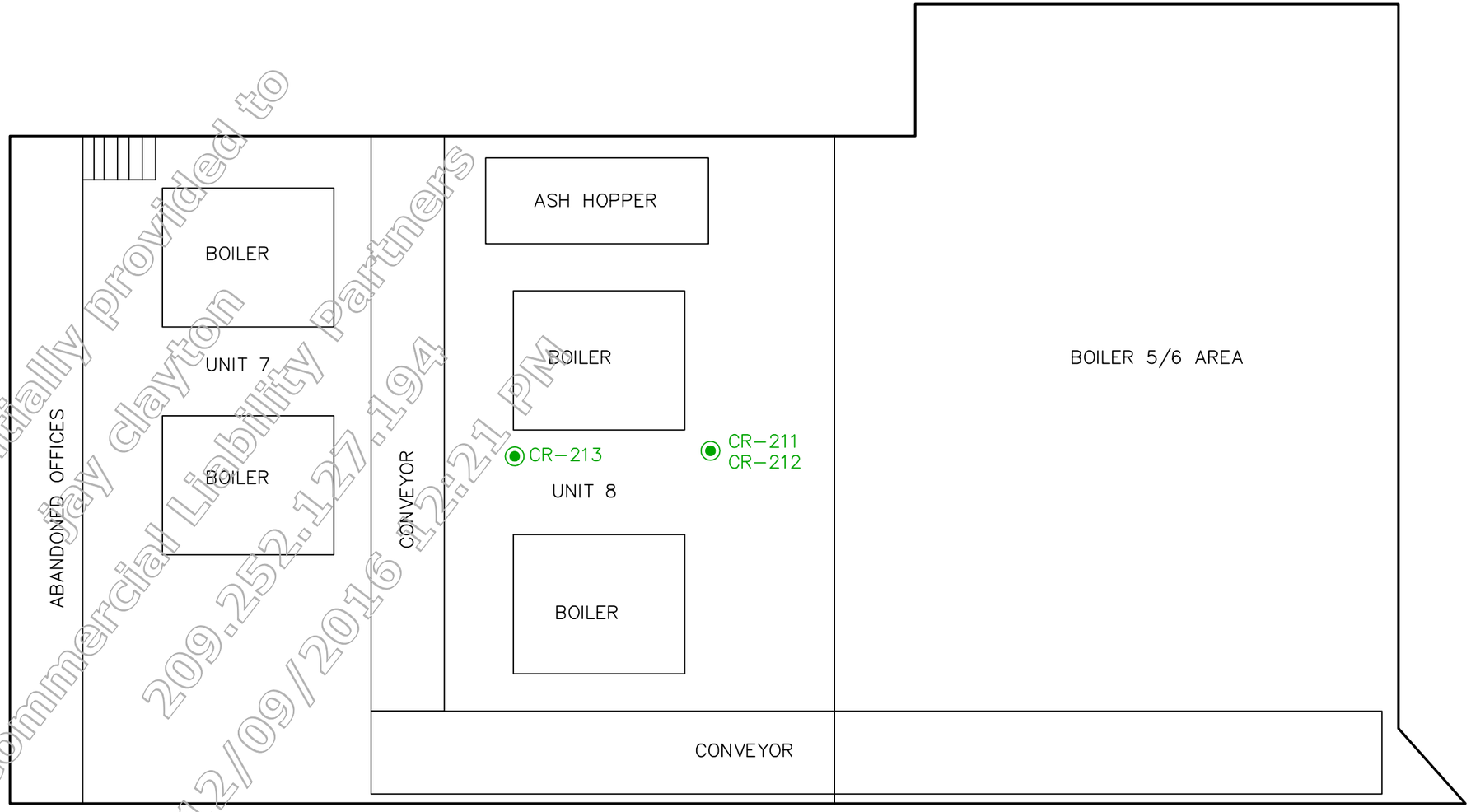
ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 5 (106')



LEGEND

CR–228 ◉ NON–ASBESTOS SAMPLE LOCATION

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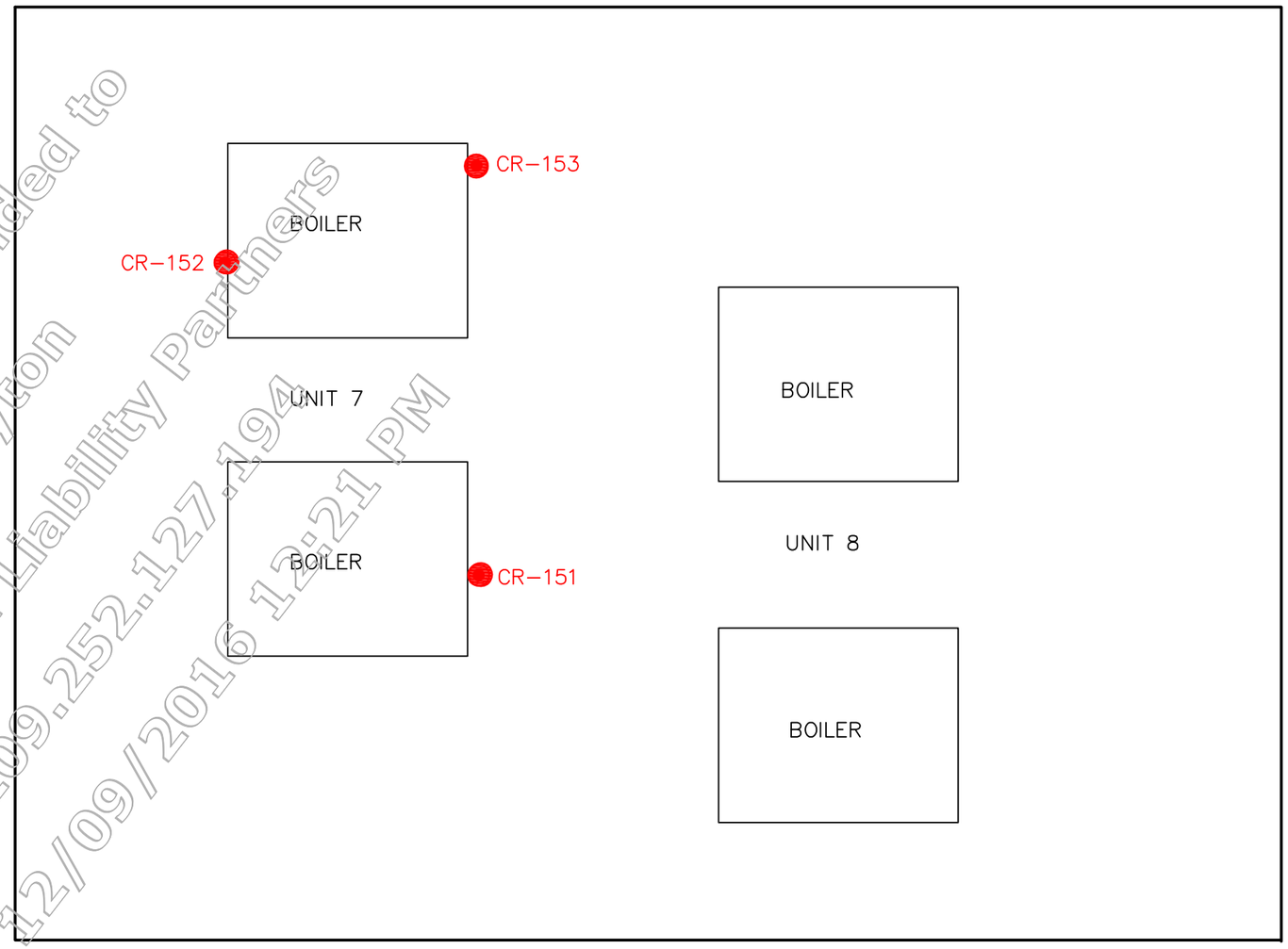
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 6

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 6 (138' 6")



LEGEND

CR–228 CONFIRMED ASBESTOS SAMPLE LOCATION

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CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 7

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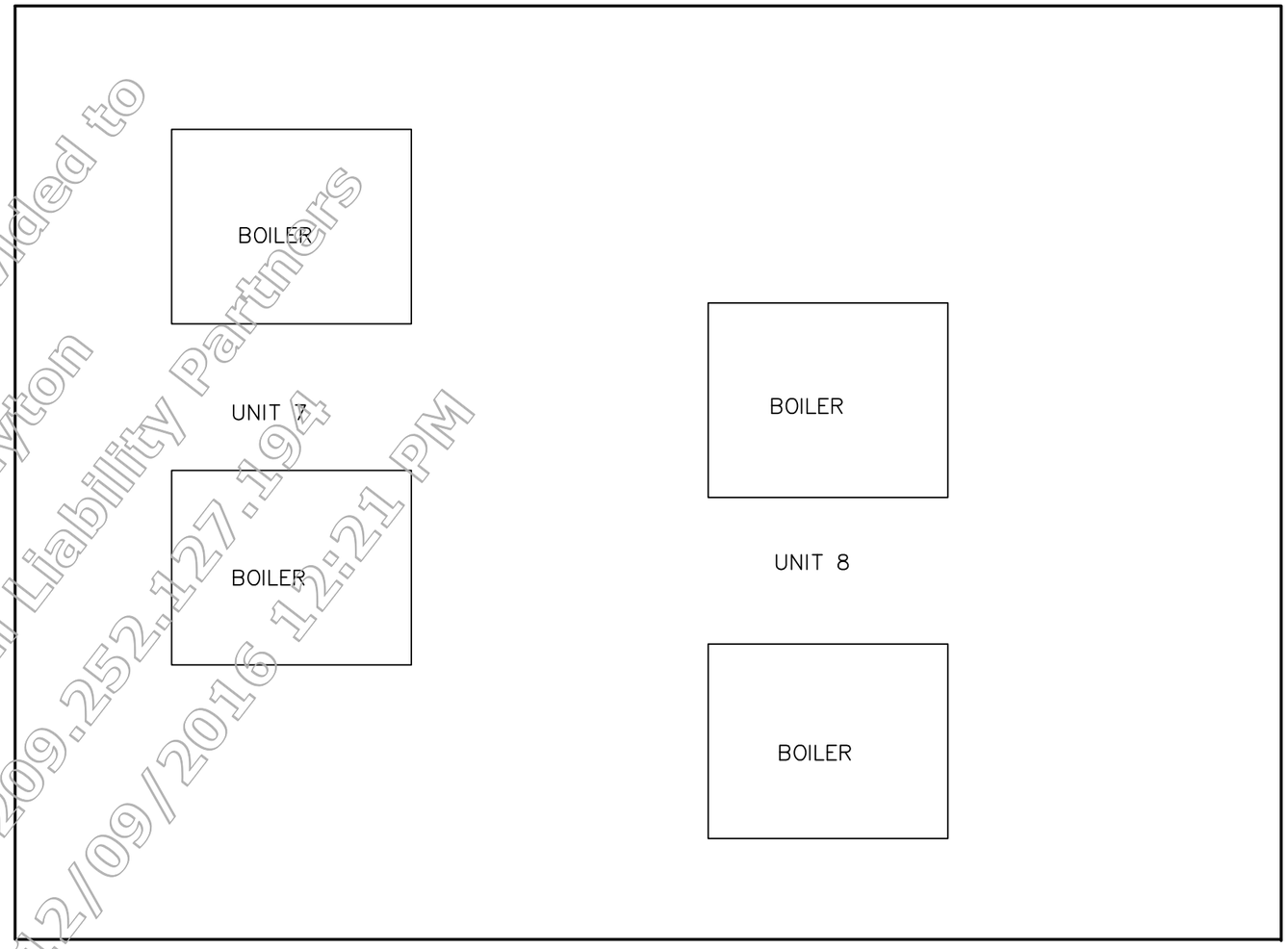
ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 7 (147')



LEGEND

CR–228 ◉ NON–ASBESTOS SAMPLE LOCATION

N

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CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 8

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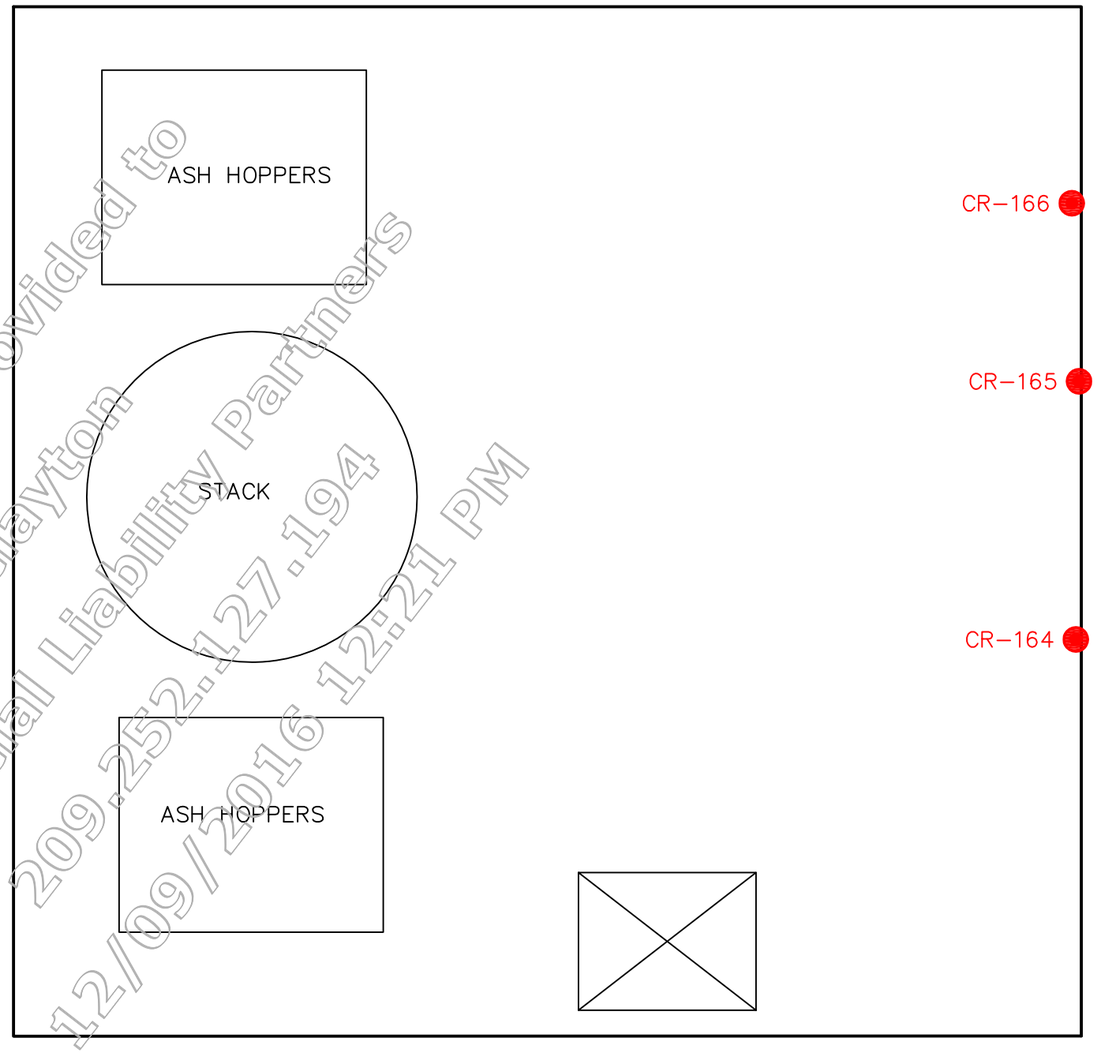
ASBESTOS SAMPLE LOCATION MAP
BOILER HOUSE – LEVEL 8 (180')



LEGEND

CR–228 CONFIRMED ASBESTOS SAMPLE LOCATION

N

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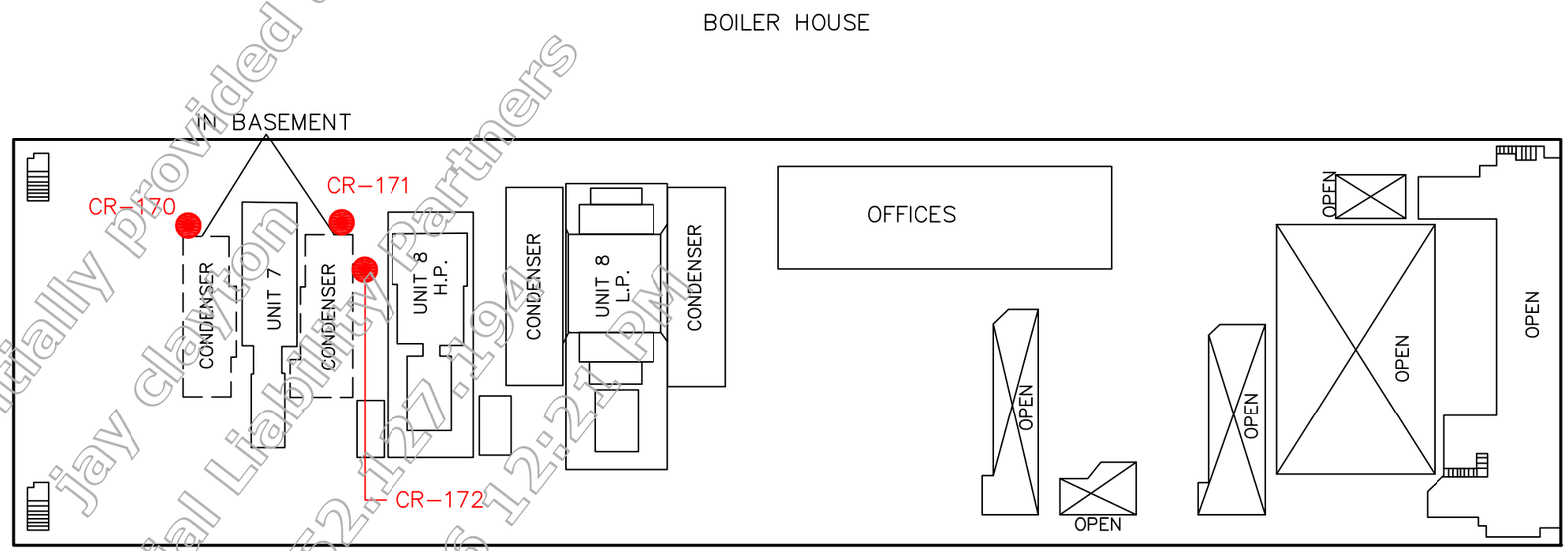
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 9

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

ASBESTOS SAMPLE LOCATION MAP
TURBINE HOUSE



LEGEND

CR-226 CONFIRMED ASBESTOS SAMPLE LOCATION

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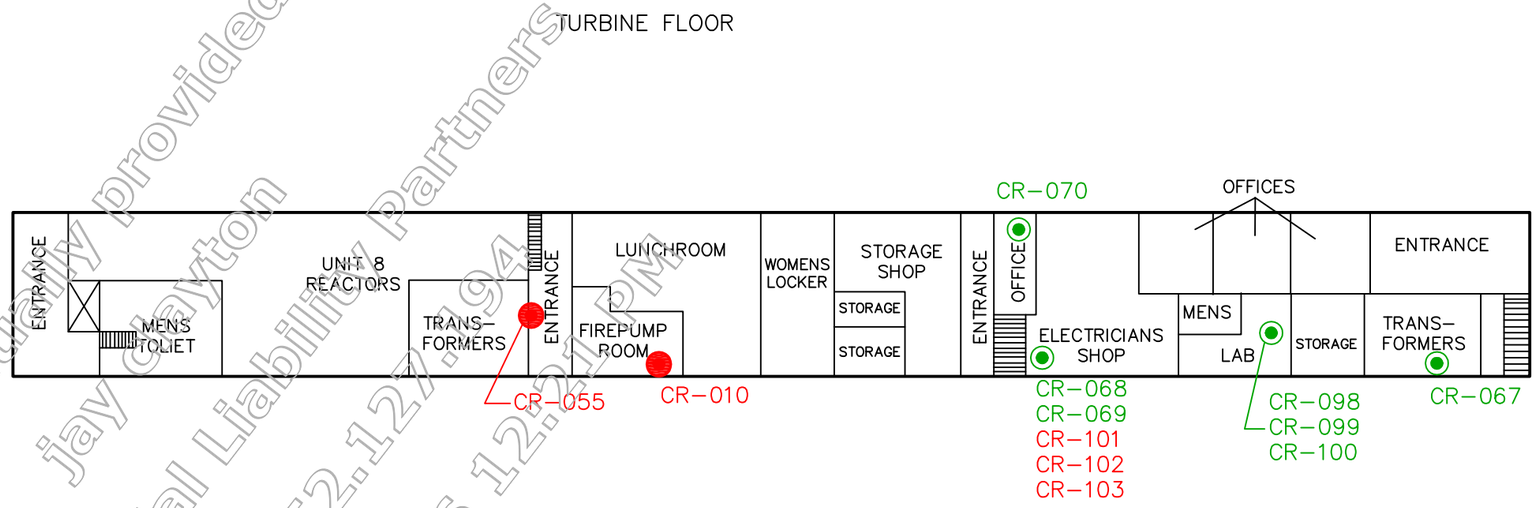
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 10

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

ASBESTOS SAMPLE LOCATION MAP
TURBINE HOUSE ADMIN – FIRST FLOOR



LEGEND

CR–226 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

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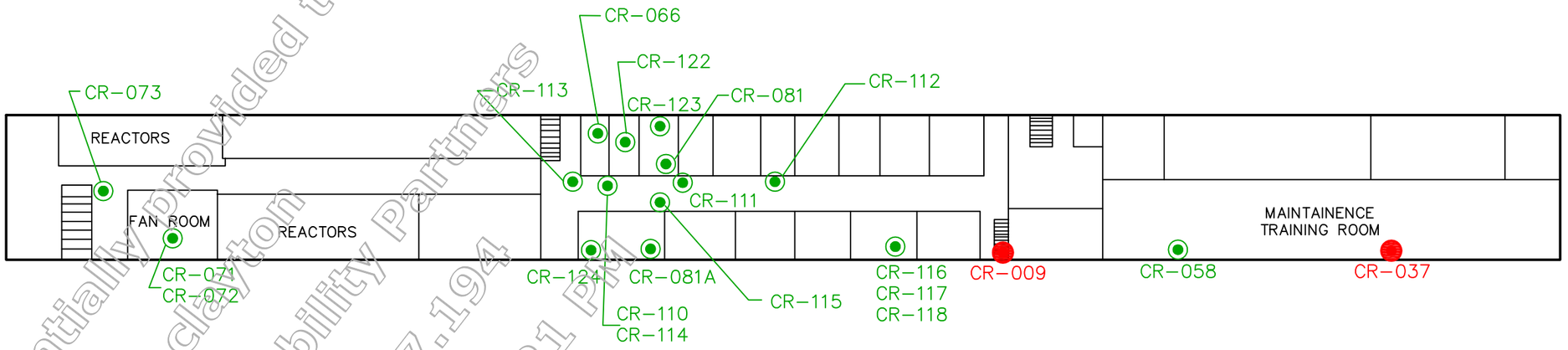
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 11

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

ASBESTOS SAMPLE LOCATION MAP
TURBINE BUILDING ADMIN – SECOND FLOOR



LEGEND

CR–220 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

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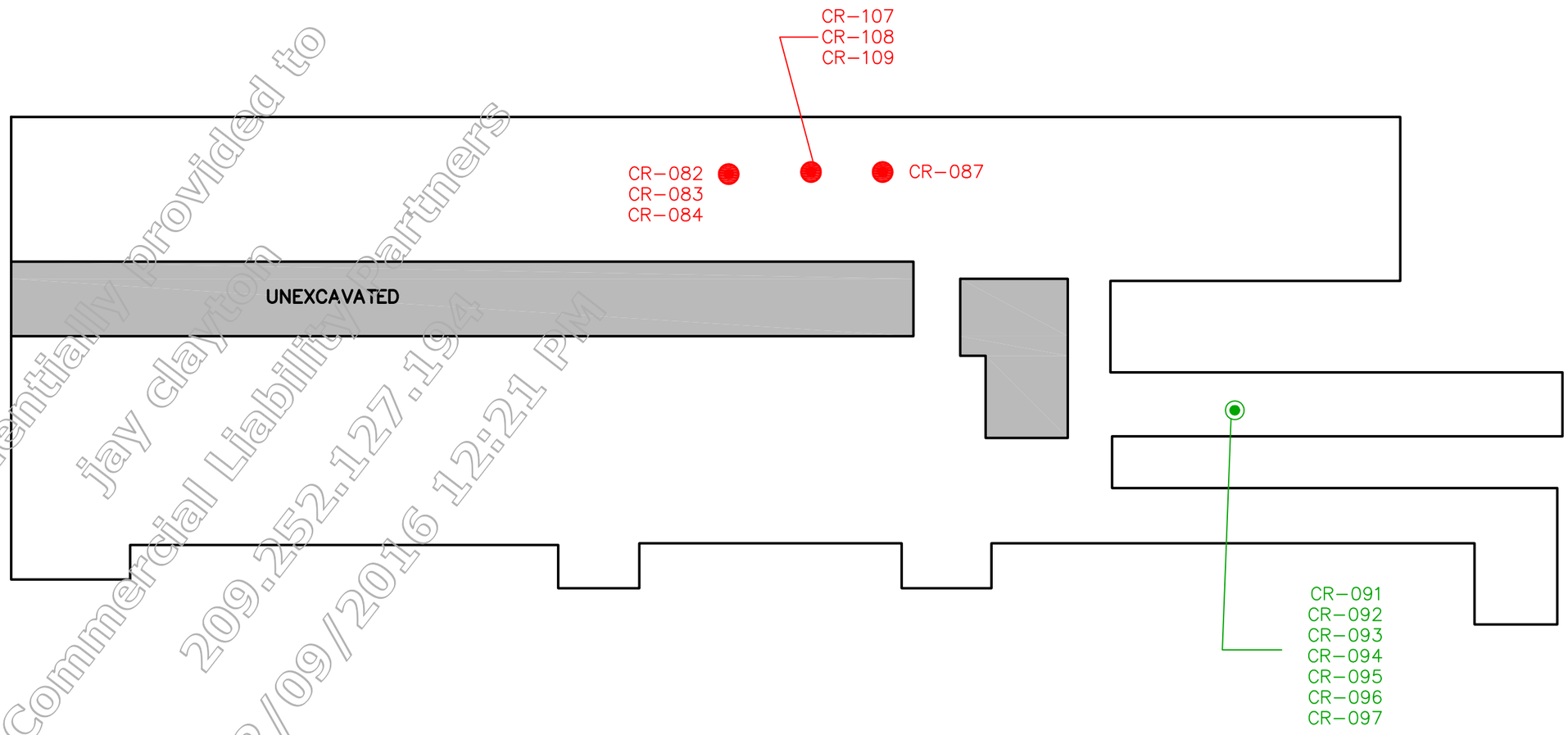
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 12

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

ASBESTOS SAMPLE LOCATION MAP
SWITCHHOUSE – BASEMENT



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LEGEND

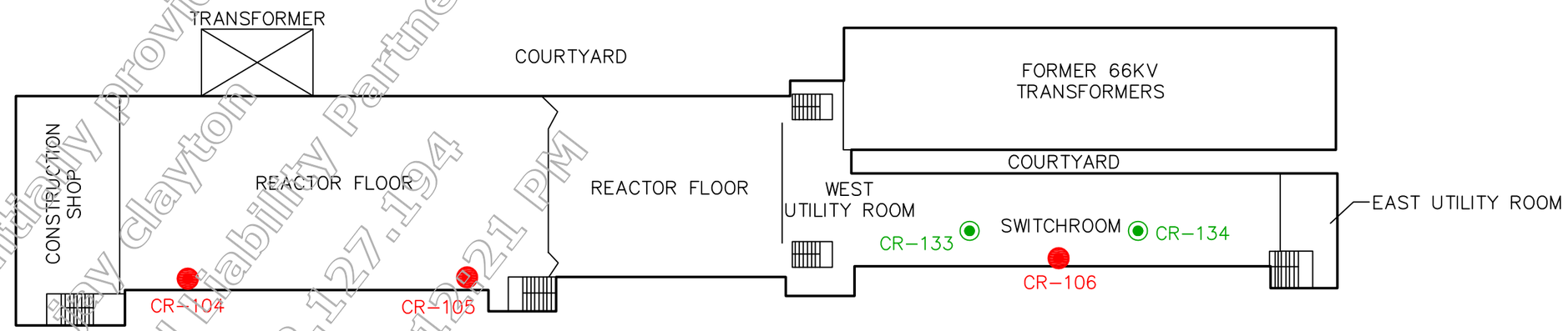
CR–147 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 13

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

ASBESTOS SAMPLE LOCATION MAP
SWITCHHOUSE – FIRST FLOOR



LEGEND

CR–147 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

N

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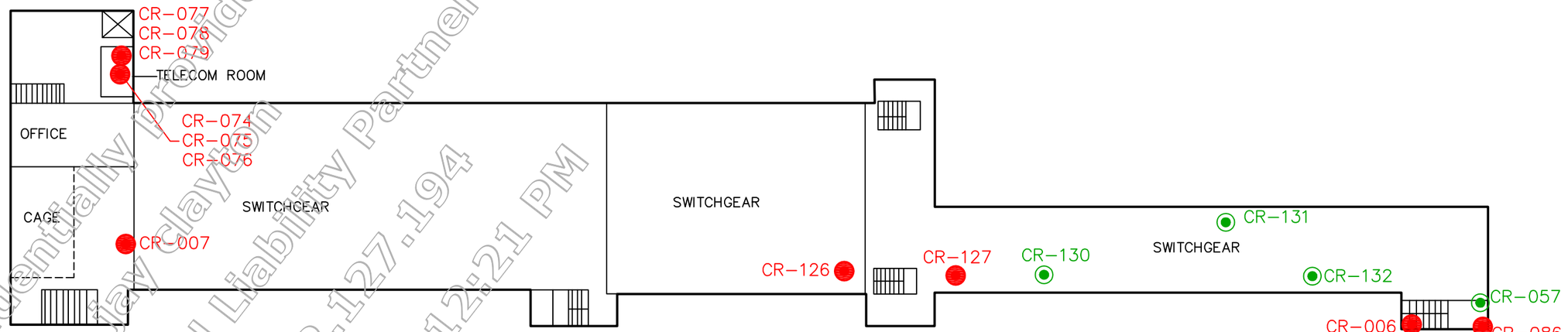
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 14

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

ASBESTOS SAMPLE LOCATION MAP
SWITCHHOUSE – THIRD FLOOR



LEGEND

CR–220 NON–ASBESTOS SAMPLE LOCATION

CR–217 CONFIRMED ASBESTOS SAMPLE LOCATION

N

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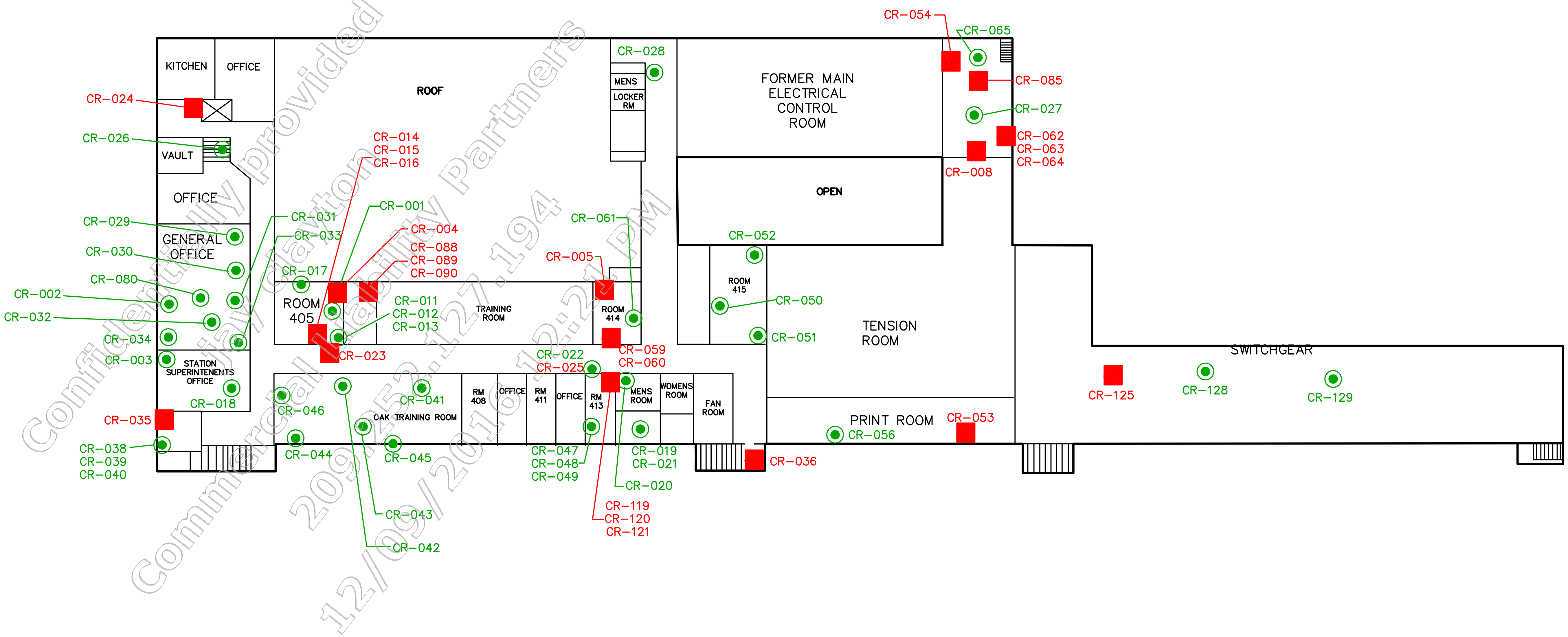
Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 15

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

ASBESTOS SAMPLE LOCATION MAP
SWITCHHOUSE – FOURTH FLOOR



LEGEND

CR–024 NON–ASBESTOS SAMPLE LOCATION

CR–024 CONFIRMED ASBESTOS SAMPLE LOCATION

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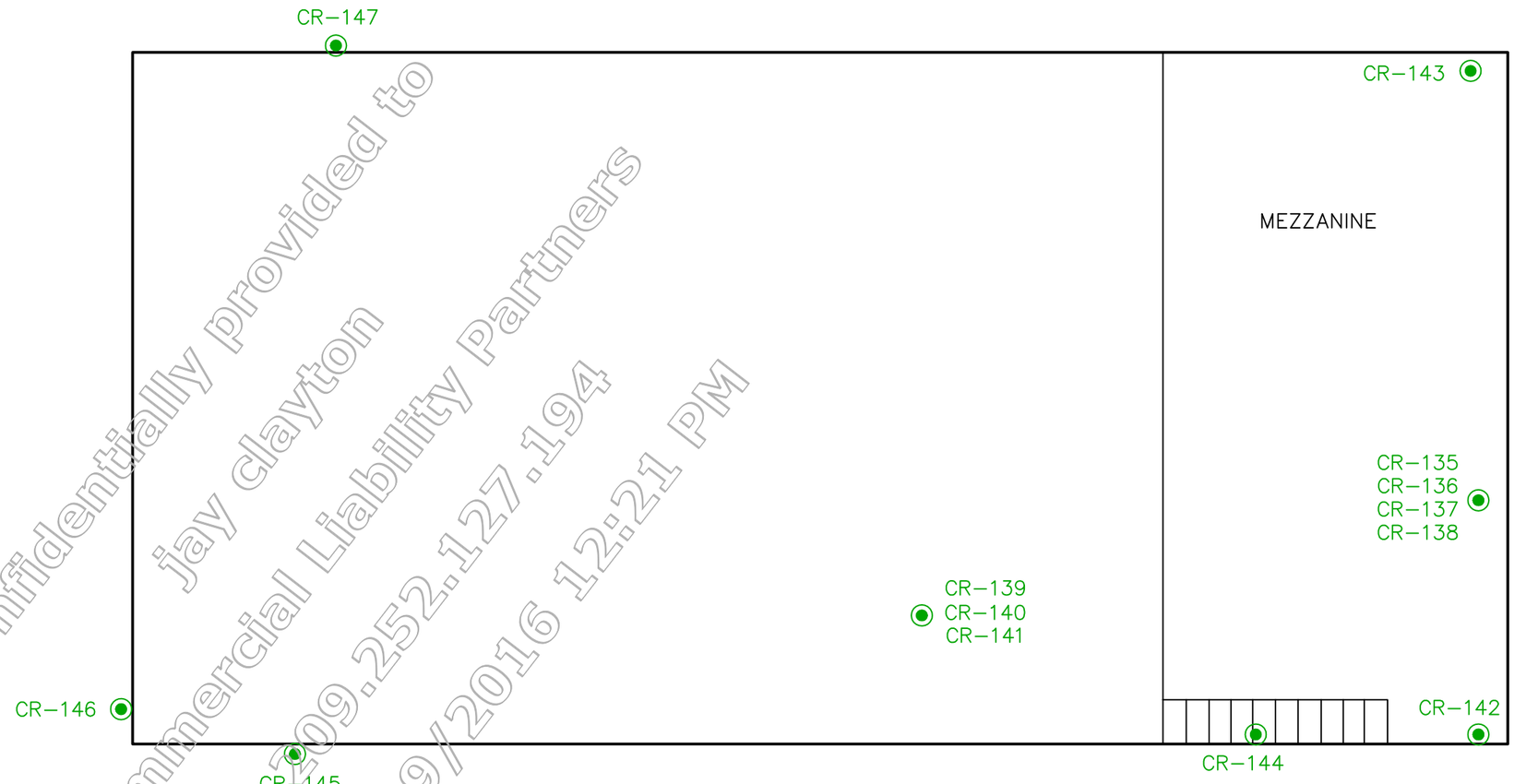
N

Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 16

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\0129526-01.dwg

ASBESTOS SAMPLE LOCATION MAP
CRAWFORD – CRIBHOUSE



LEGEND

CR–147 NON–ASBESTOS SAMPLE LOCATION

N

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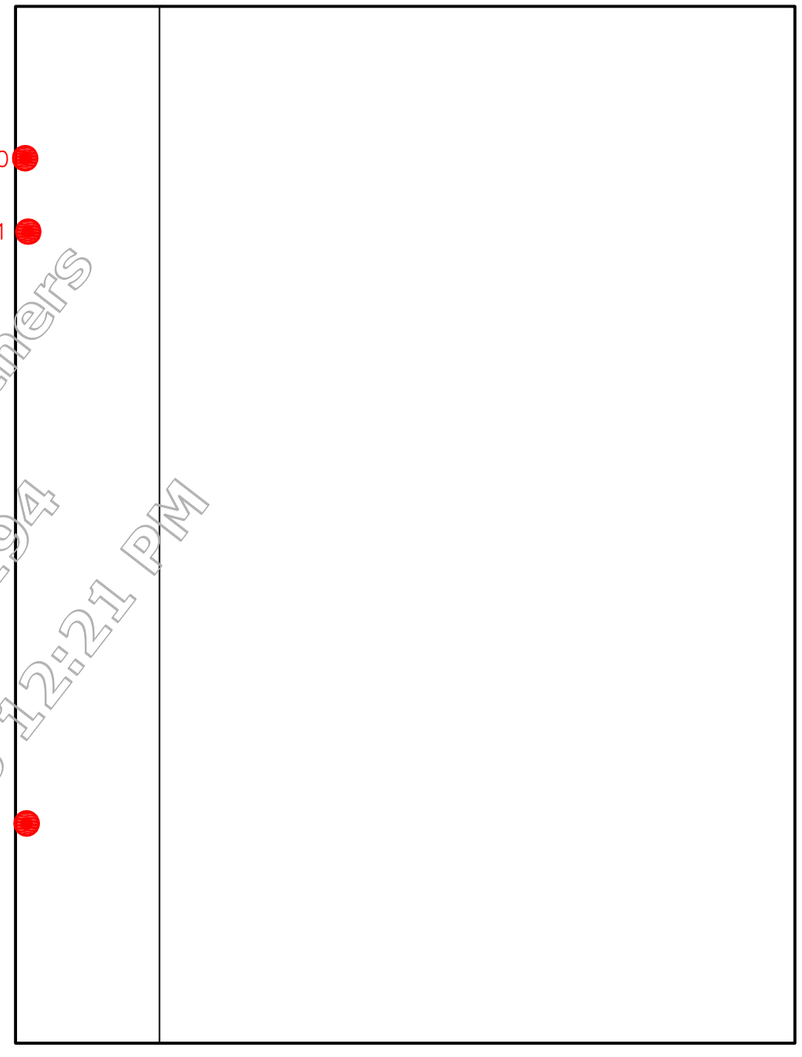
Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 17

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\0129526-01.dwg

ASBESTOS SAMPLE LOCATION MAP
LOCOMOTIVE HOUSE



LEGEND

CR-220 CONFIRMED ASBESTOS SAMPLE LOCATION

N

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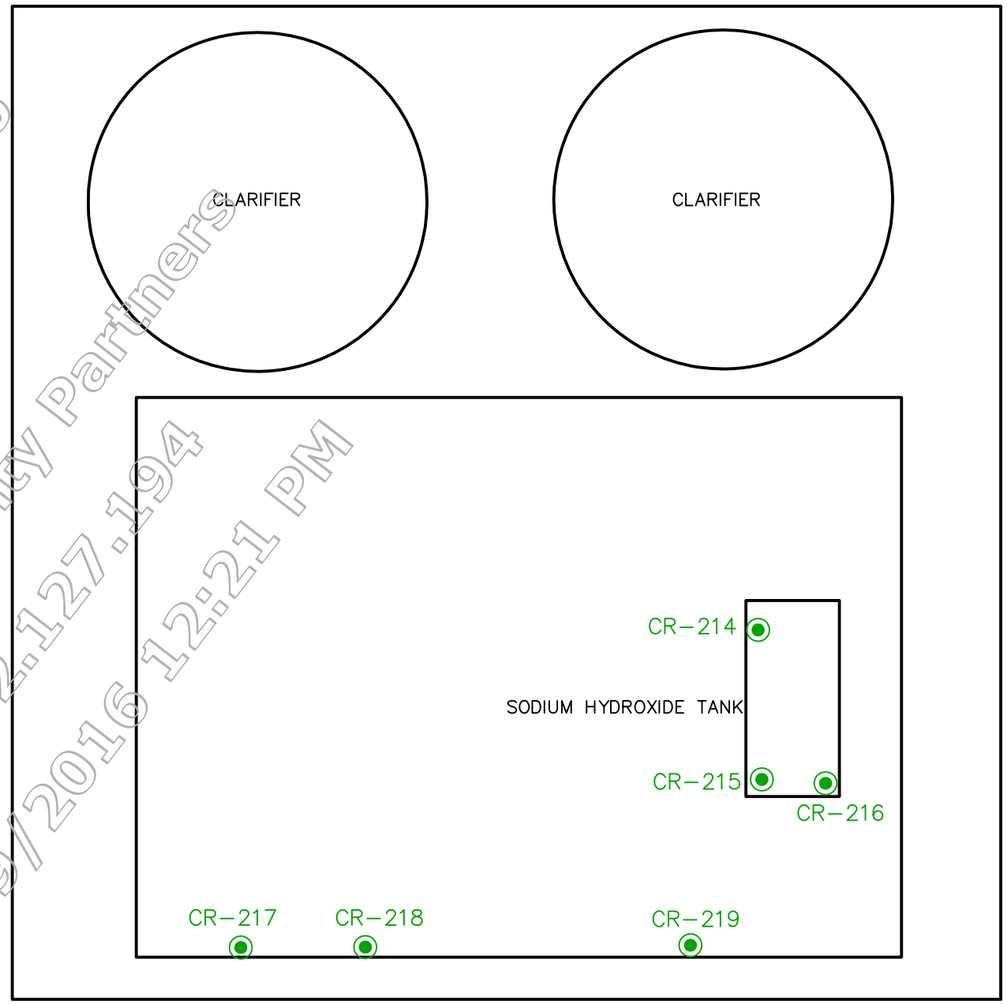
Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 18

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\0129526-01.dwg

ASBESTOS SAMPLE LOCATION MAP
WASTEWATER TREATMENT PLANT



LEGEND

CR-217 ◉ NON-ASBESTOS SAMPLE LOCATION

N

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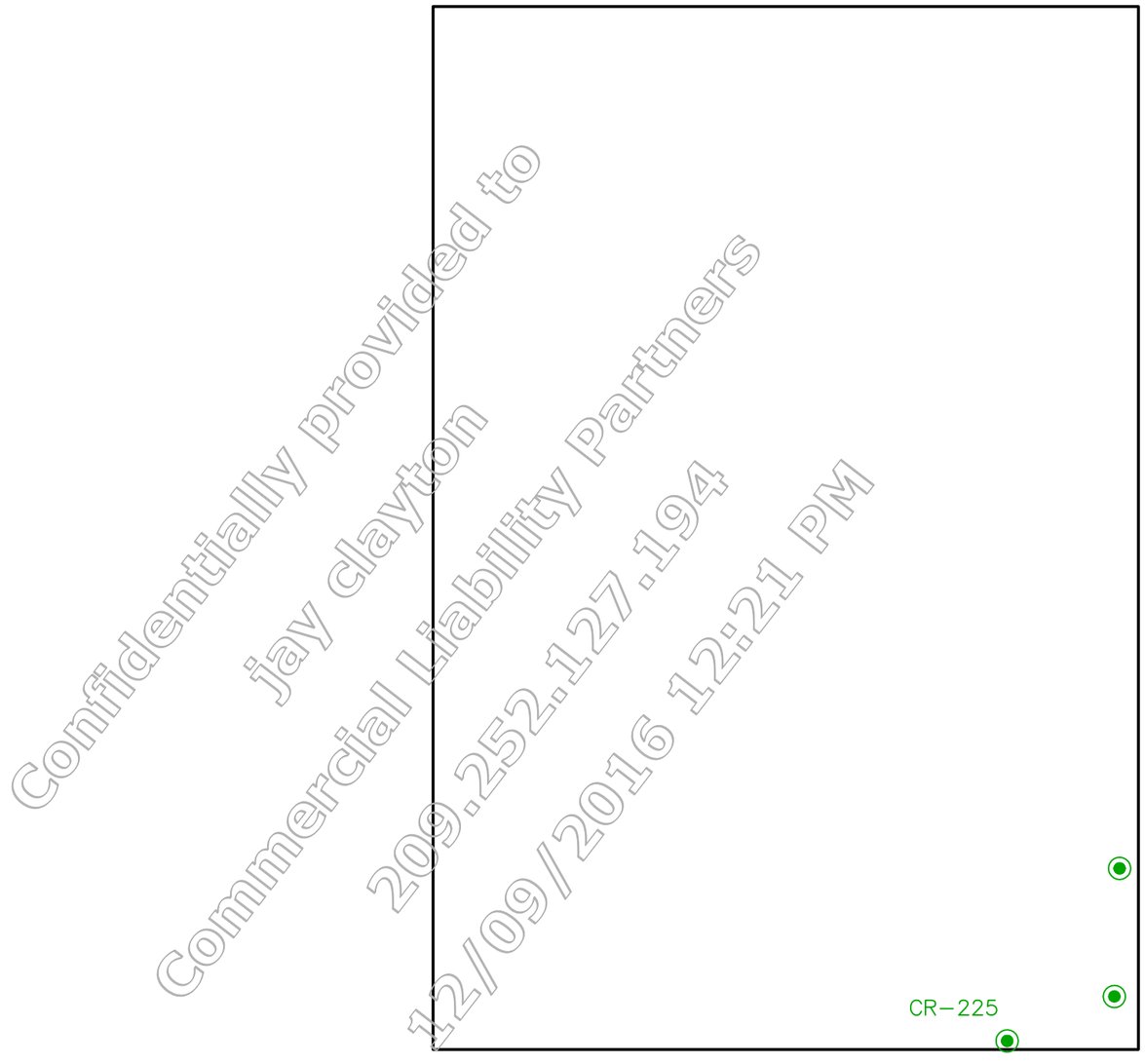
Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 19

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\0129526-01.dwg

ASBESTOS SAMPLE LOCATION MAP
COAL PLANT OFFICE



LEGEND

CR-226 ◉ NON-ASBESTOS SAMPLE LOCATION

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 20

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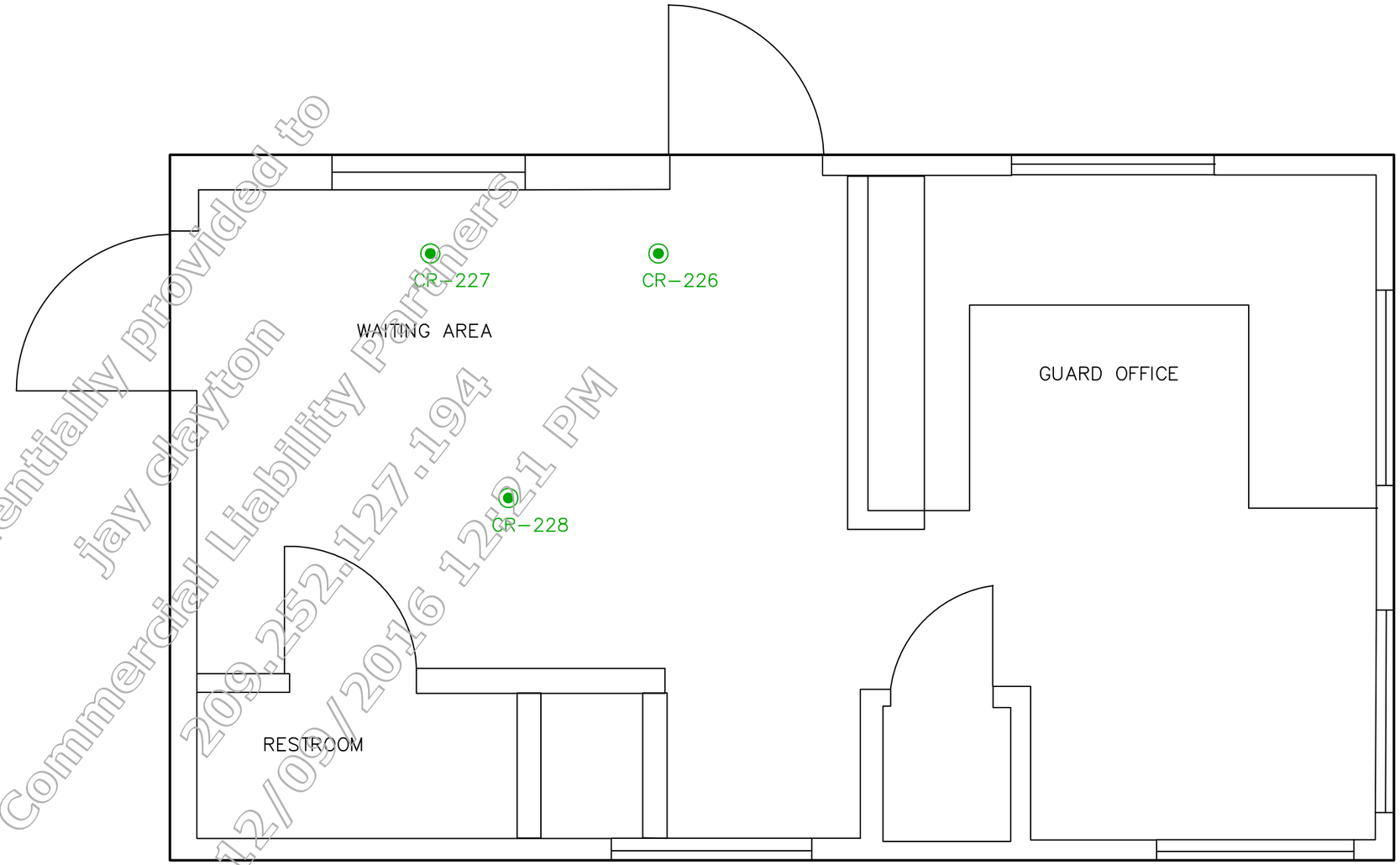
ASBESTOS SAMPLE LOCATION MAP
GUARDHOUSE



LEGEND

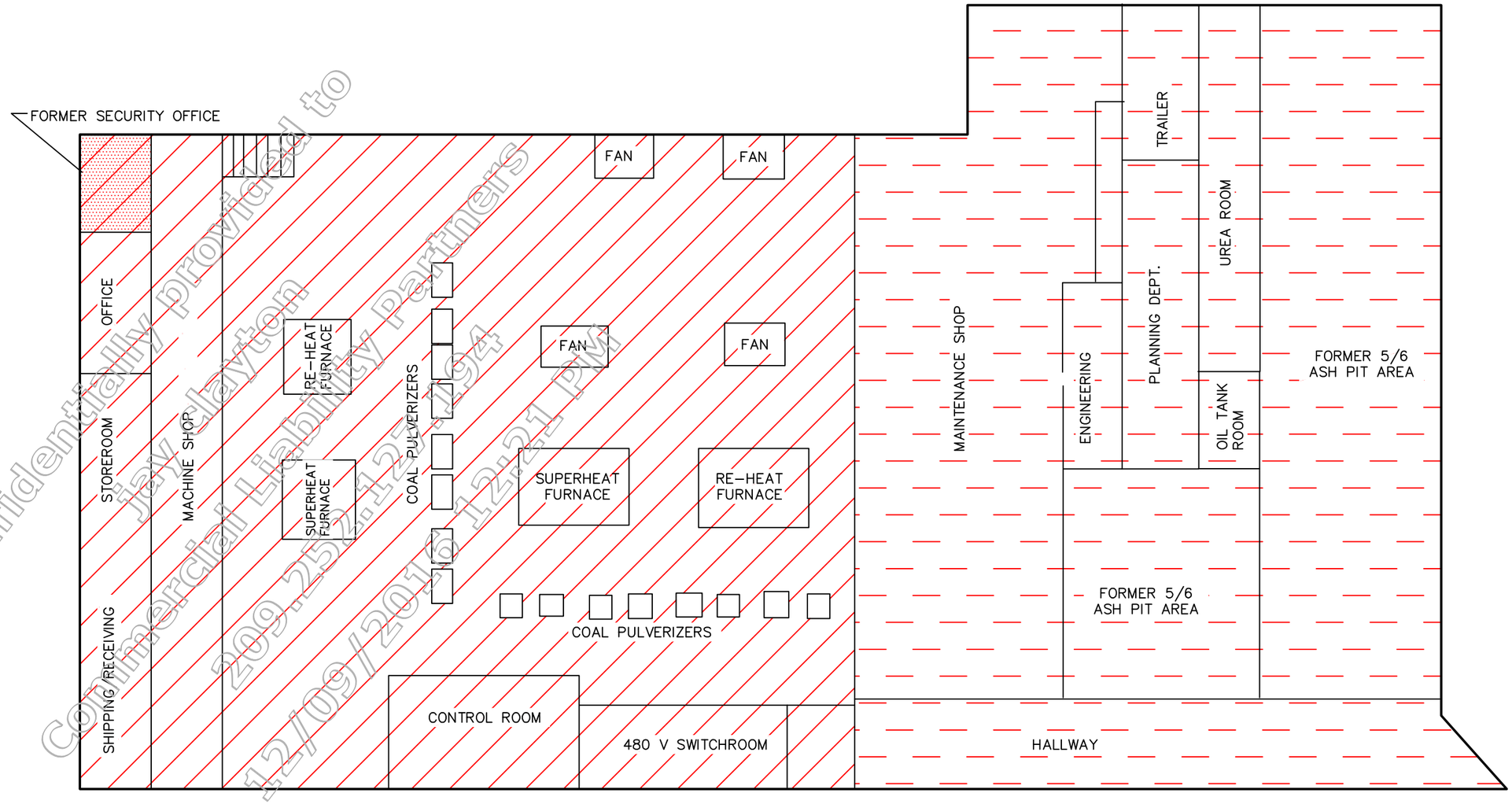
CR-228 ◉ NON-ASBESTOS SAMPLE LOCATION

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 21

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\0129526-01.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 1 (10')



LEGEND

- 7/8 BOILERS AND THERMAL SYSTEM INSULATION
- 5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)
- BLACK MASTIC UNDER FLOOR TILE (MATERIAL 59)

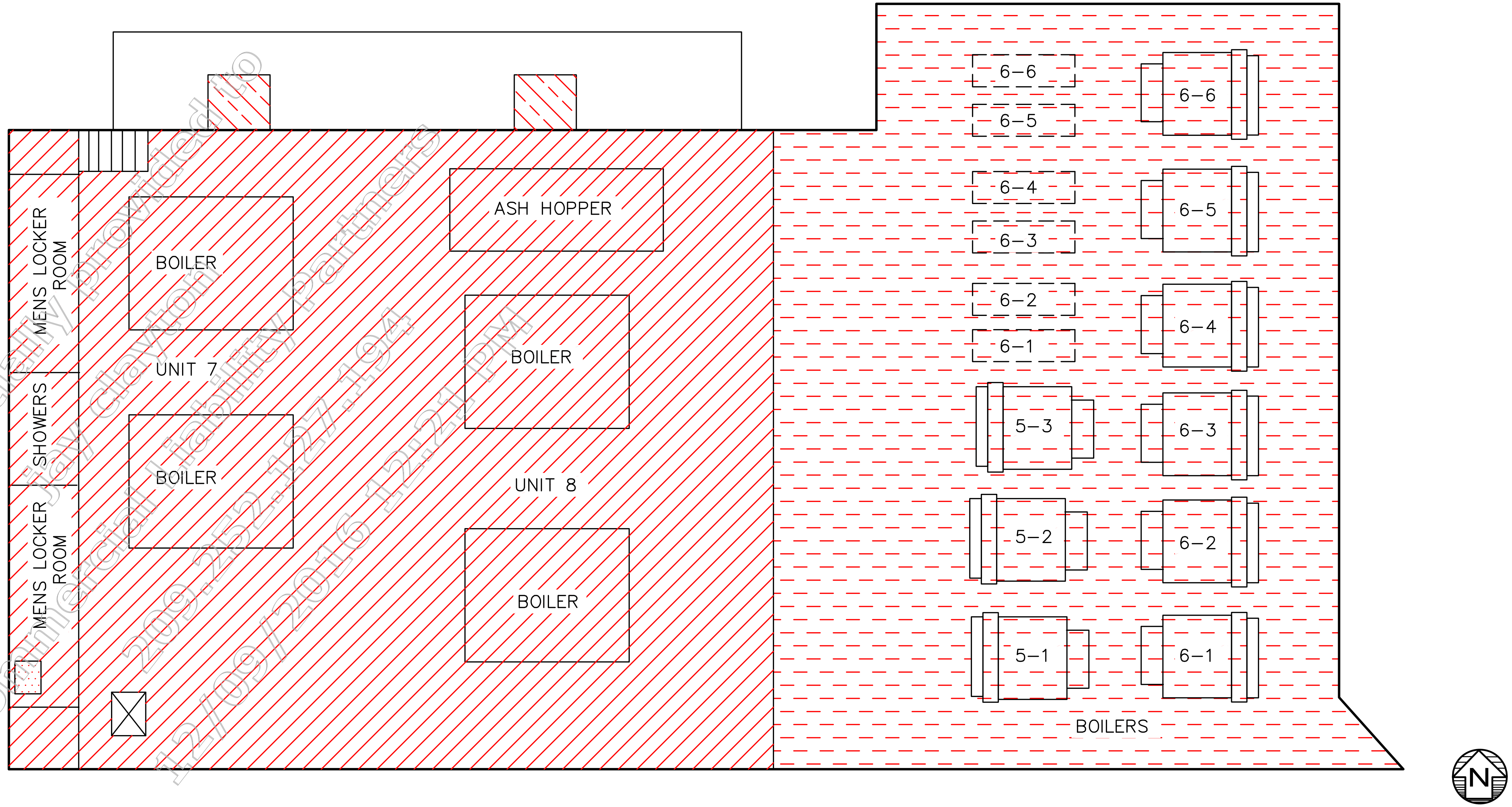
NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	MIDWEST GENERATION – CRAWFORD	CHK'D MB
CADD Review RMK	3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	0168420
Date Drawn/Rev'd 7/11/12	Environmental Resources Management	FIGURE 22

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 2 (41')



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

LEGEND

- 7/8 BOILERS AND THERMAL SYSTEM INSULATION
- 5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)
- DUCT INSULATION (MATERIAL 55)
- TRANSITE WALL PANELS (MATERIAL 52)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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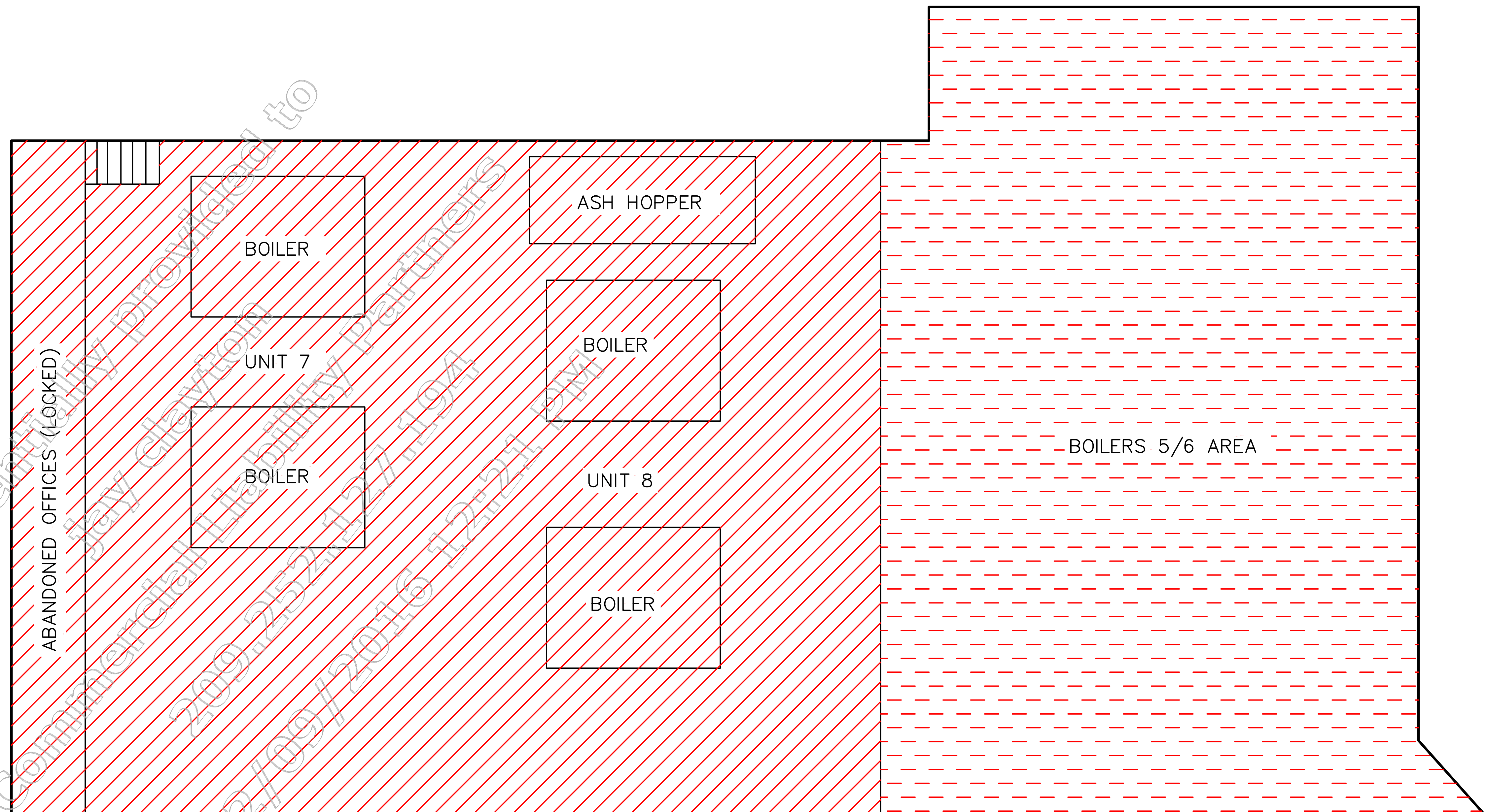
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 23

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 3 (70' 6")



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

LEGEND

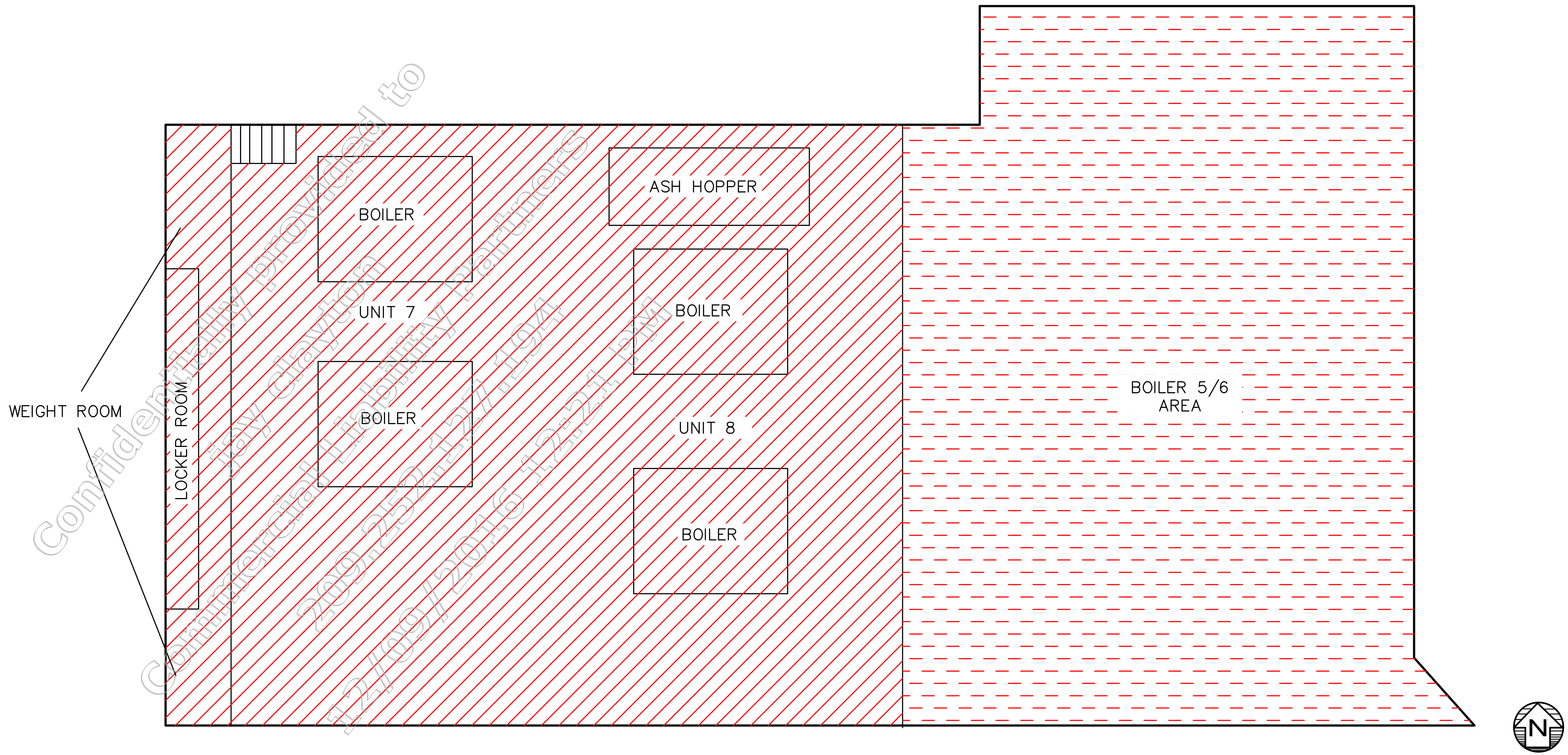
- 7/8 BOILERS, ASH HOPPERS AND THERMAL SYSTEM INSULATION
- 5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 24

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 4 (88' 6")



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

LEGEND

- (diagonal hatch) 7/8 BOILERS, ASH HOPPER AND THERMAL SYSTEM INSULATION
- (dashed hatch) 5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 25

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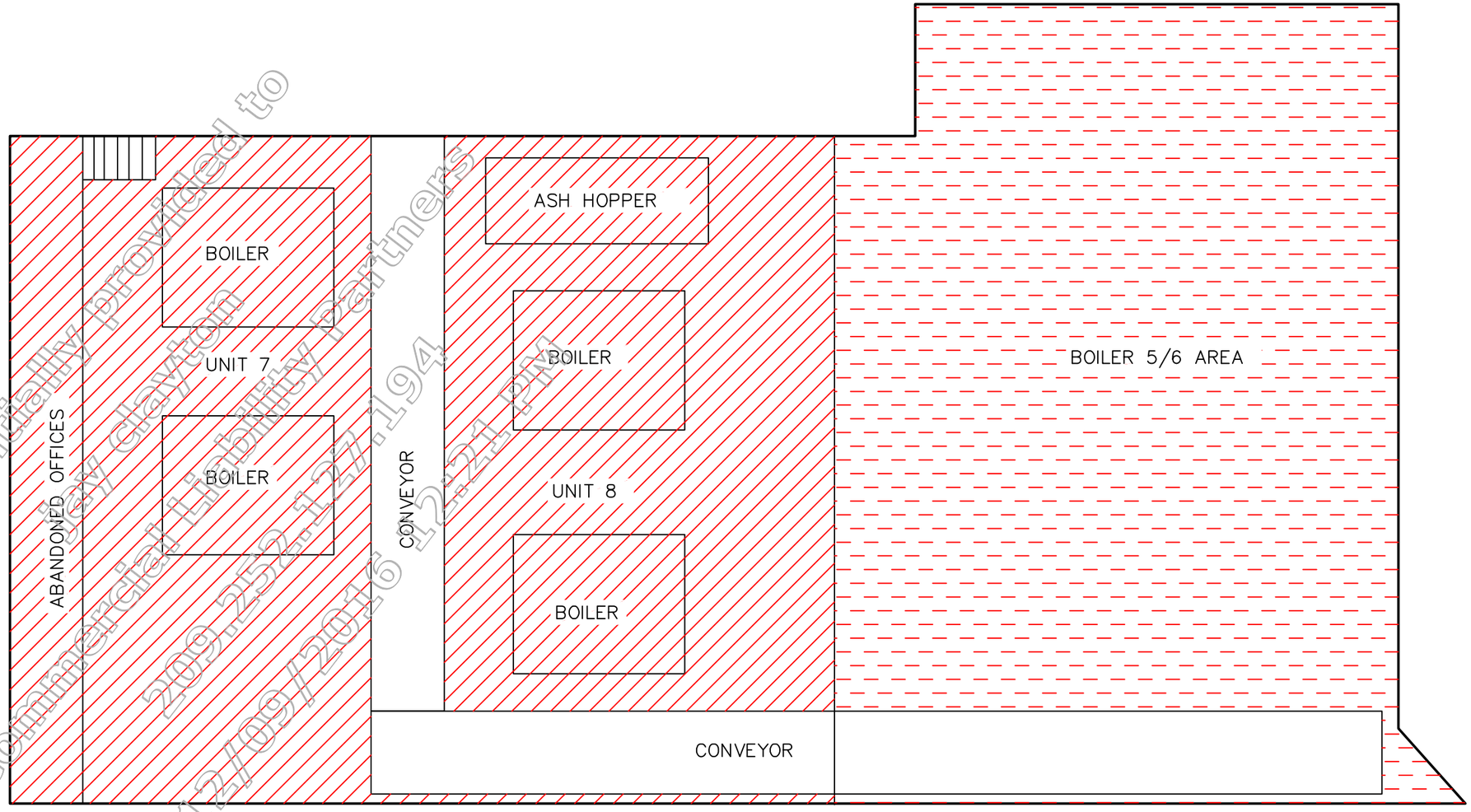
CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 5 (106')



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

LEGEND

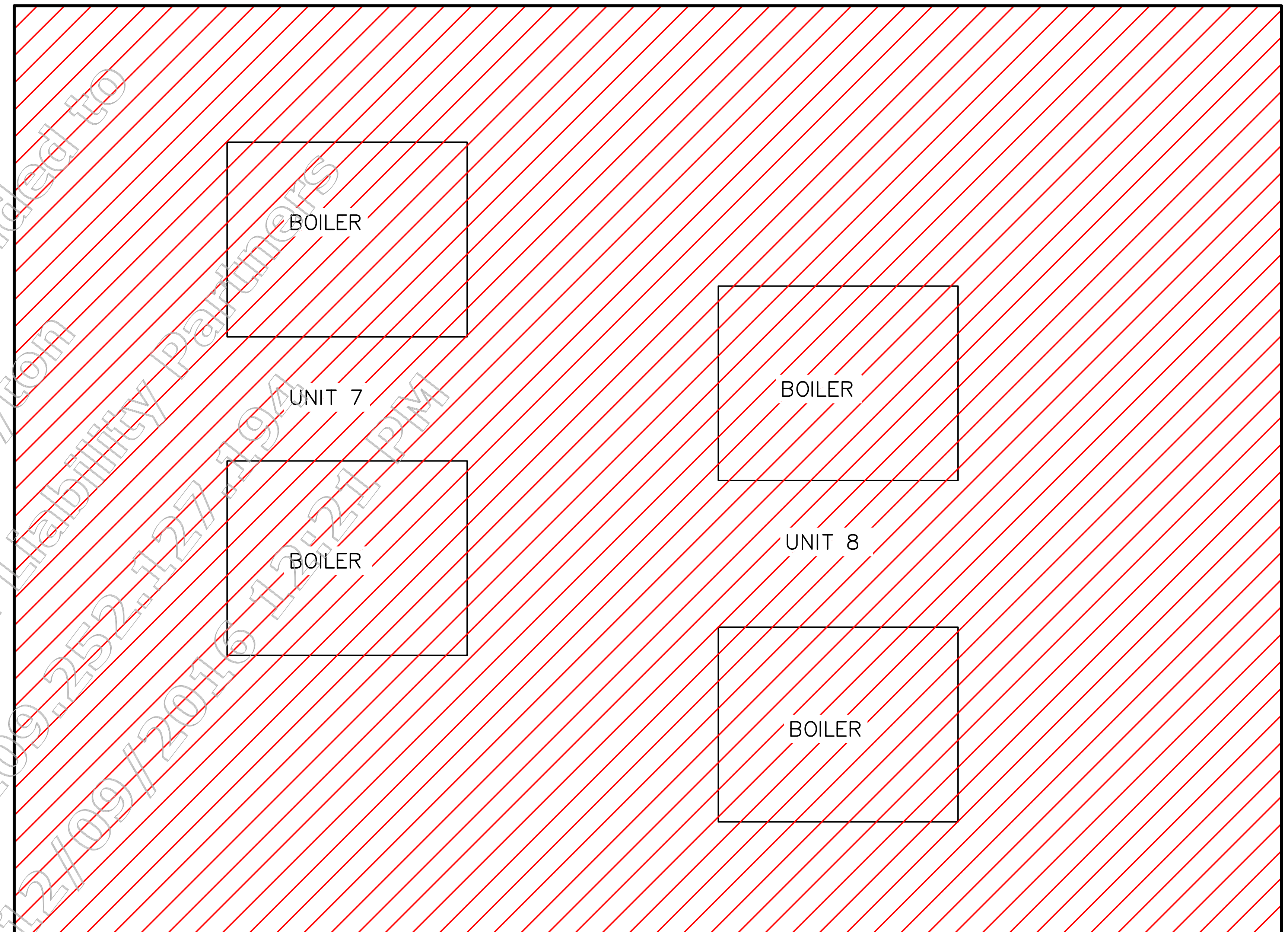
- 7/8 BOILERS, ASH HOPPERS AND THERMAL SYSTEM INSULATION
- 5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 26

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 6 (138' 6")



LEGEND

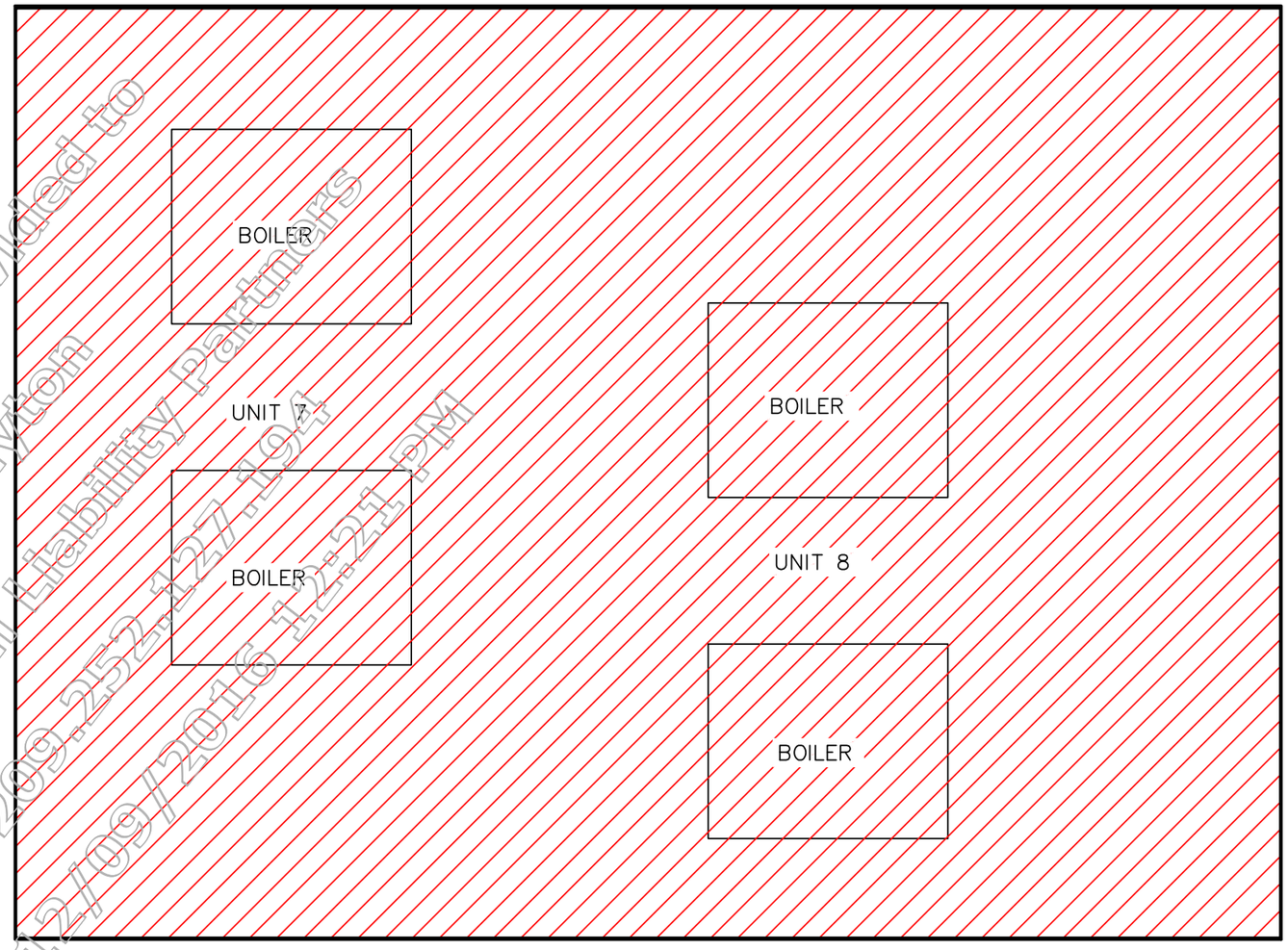
7/8 BOILERS AND THERMAL SYSTEM INSULATION

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 27

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 7 (147')



LEGEND

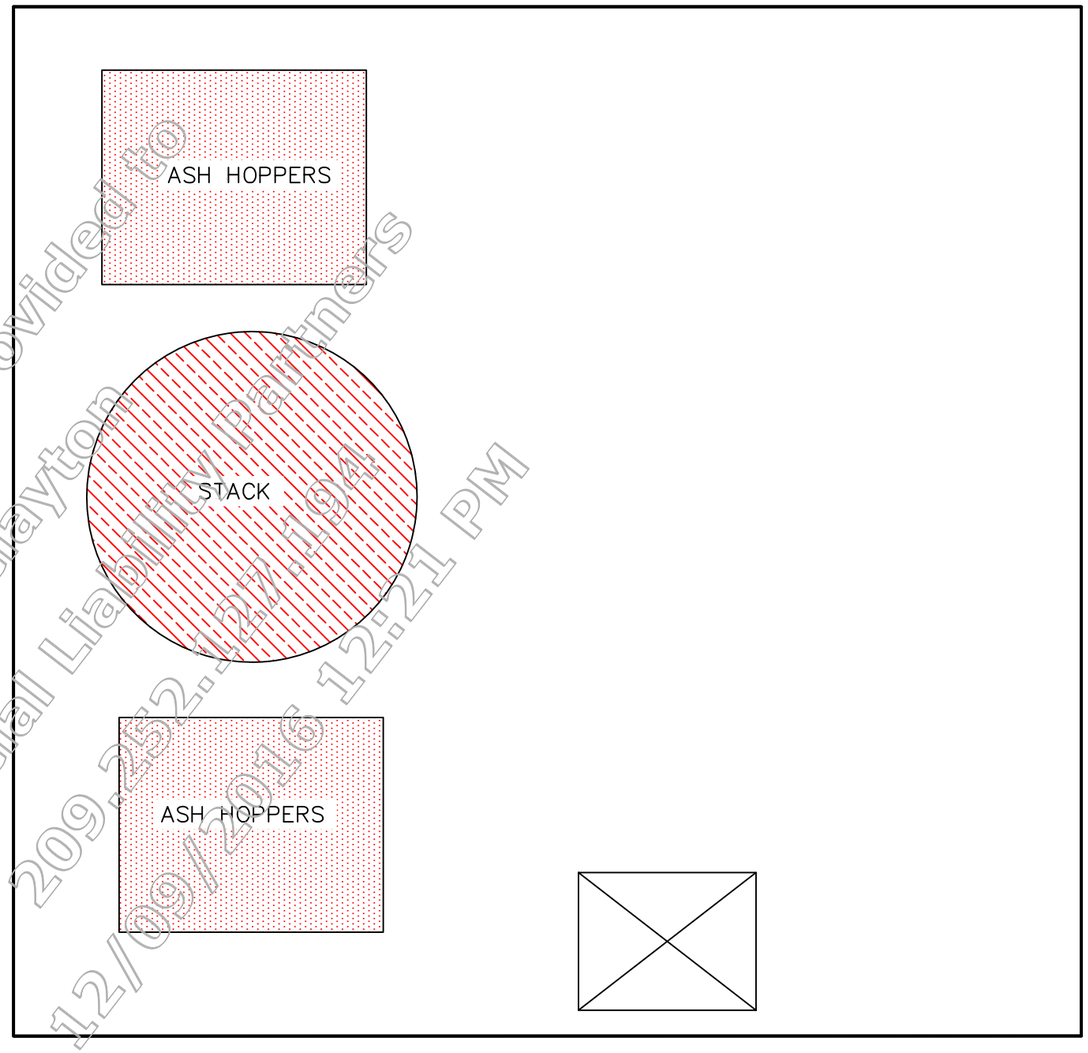
7/8 BOILERS AND THERMAL SYSTEM INSULATION

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 28

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
BOILER HOUSE – LEVEL 8 (180')



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

LEGEND

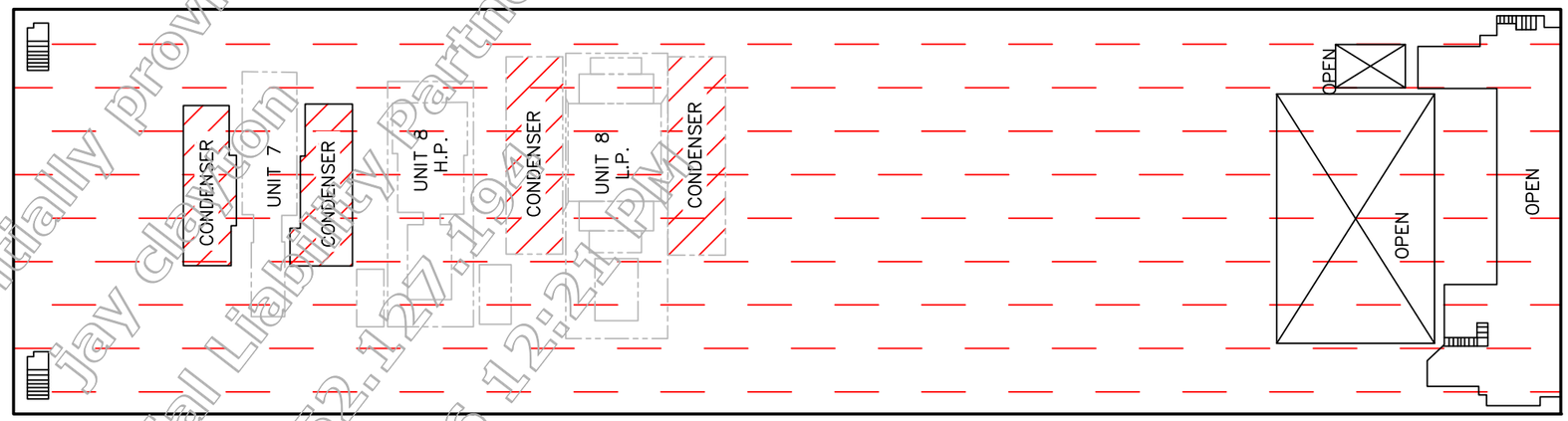
- ASSUMED BOILER STACK INSULATION
- ASH HOPPER INSULATION (MATERIAL 48)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 29

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
TURBINE HOUSE – BASEMENT



LEGEND

TURBINE STEAM CONDENSER INSULATION (MATERIAL 51)

THERMAL SYSTEM INSULATION

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

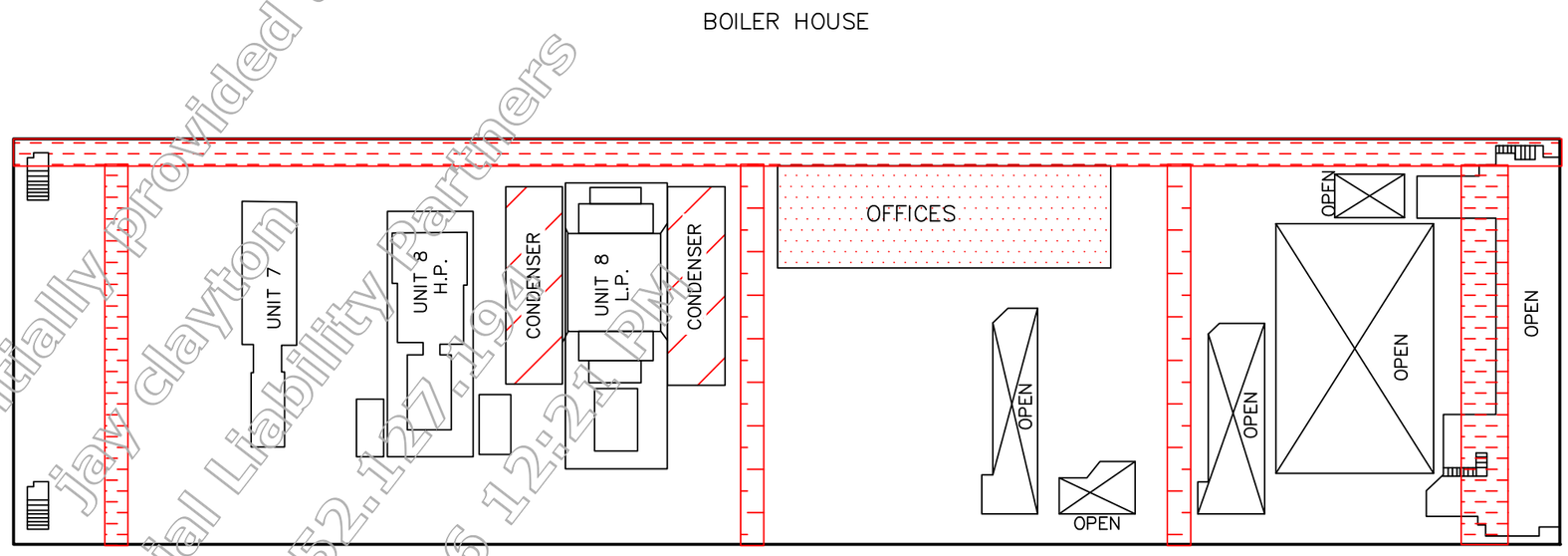
N

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 30

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
TURBINE HOUSE – FIRST FLOOR



LEGEND

- TURBINE STEAM CONDENSER INSULATION (MATERIAL 51)
- THERMAL SYSTEM INSULATION
- ASSUMED FLOOR TILE

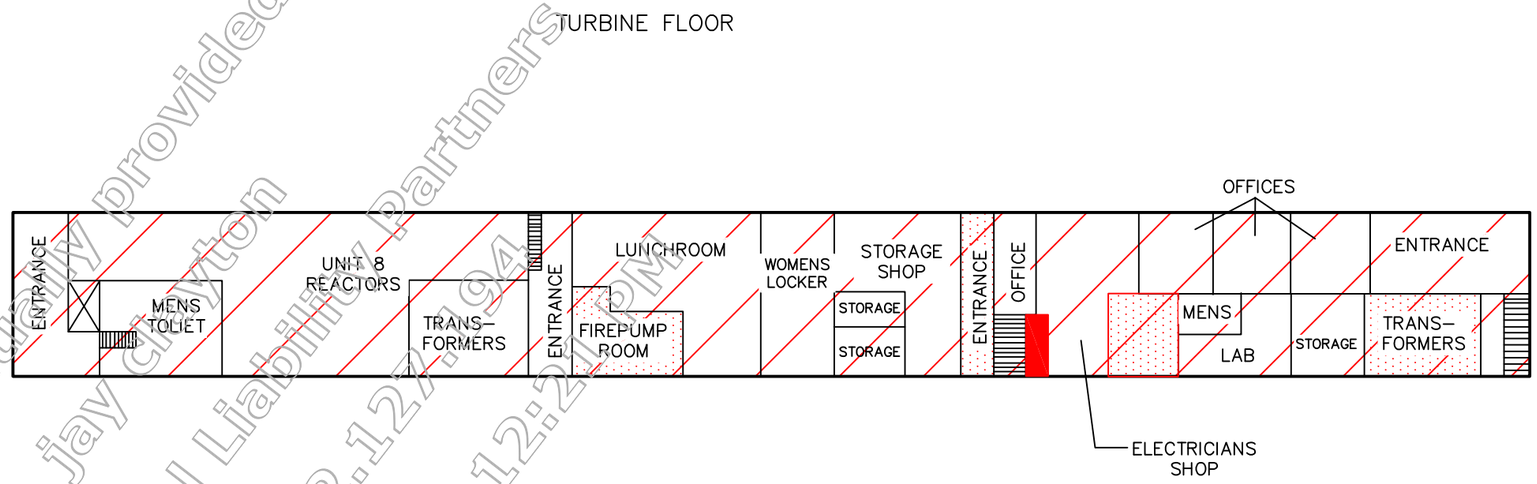
NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 31

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
TURBINE HOUSE ADMIN – FIRST FLOOR



LEGEND

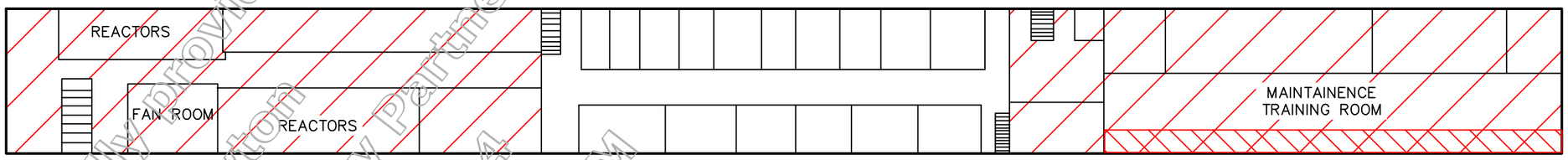
- PLASTER (MATERIAL 2)
- 1'X1' WHITE FLOOR TILE (MATERIAL 32)
- THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 32

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

CONFIRMED ASBESTOS LOCATION MAP
TURBINE BUILDING ADMIN – SECOND FLOOR



LEGEND

PLASTER (MATERIAL 2)

THERMAL SYSTEM INSULATION
(MATERIALS 11/17/27/28/34)

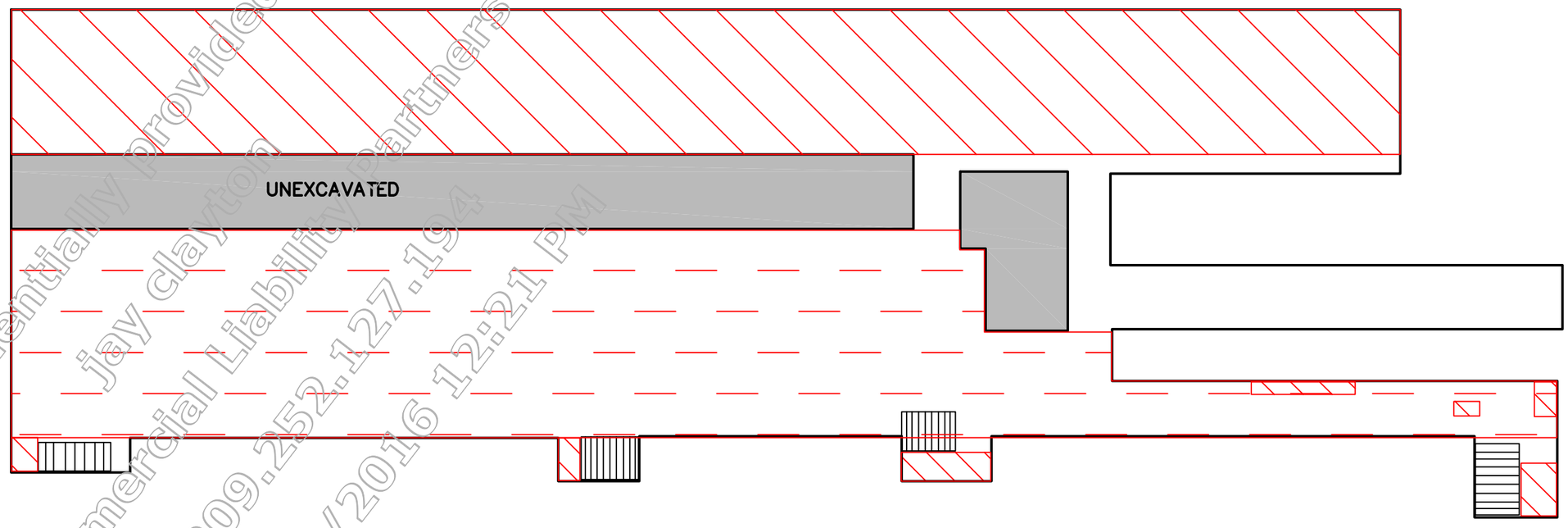
N

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 33

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

CONFIRMED ASBESTOS LOCATION MAP
SWITCHHOUSE – BASEMENT



LEGEND

THERMAL SYSTEM INSULATION

TRANSITE (MATERIAL 40)

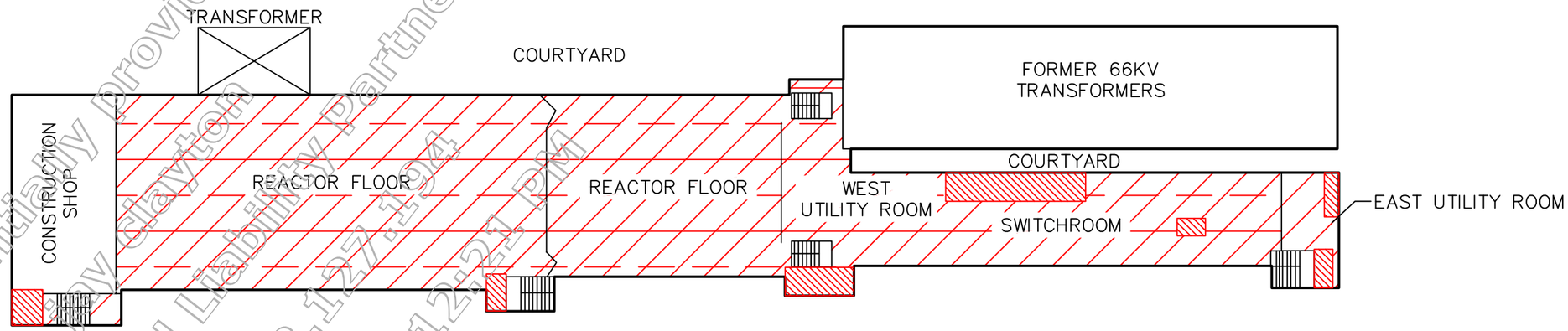
N

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 34

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_MAIN_BUILDINGS_ACM.dwg

CONFIRMED ASBESTOS LOCATION MAP
SWITCHHOUSE – FIRST FLOOR



LEGEND

- PLASTER (MATERIAL 2)
- THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)
- TRANSITE (MATERIAL 40)

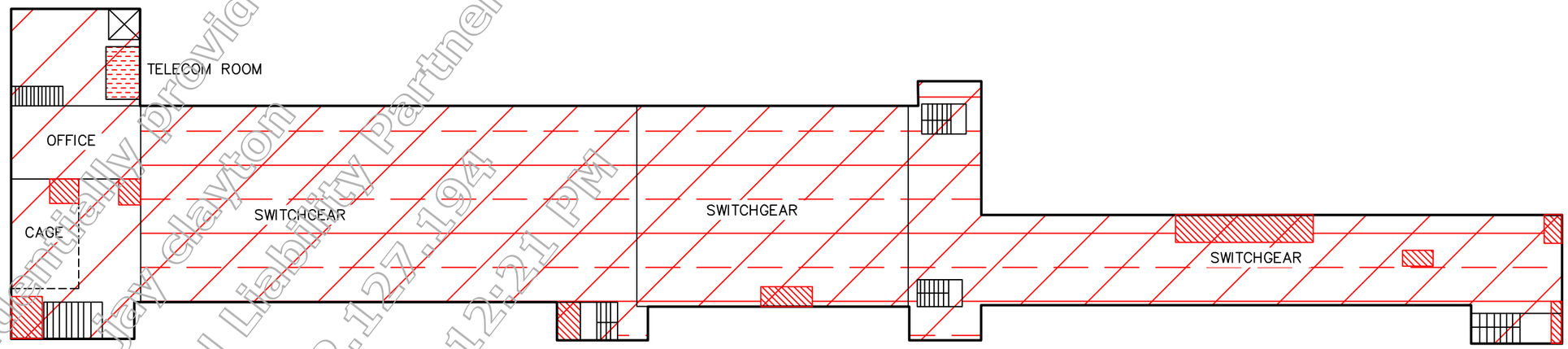
N

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/8/12		Environmental Resources Management	FIGURE 35

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

CONFIRMED ASBESTOS LOCATION MAP
SWITCHHOUSE – THIRD FLOOR



LEGEND

- PLASTER (MATERIAL 2)
- THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)
- 9"X9" GREEN AND GRAY FLOOR TILES (MATERIALS 24 AND 25)
- TRANSITE (MATERIAL 40)

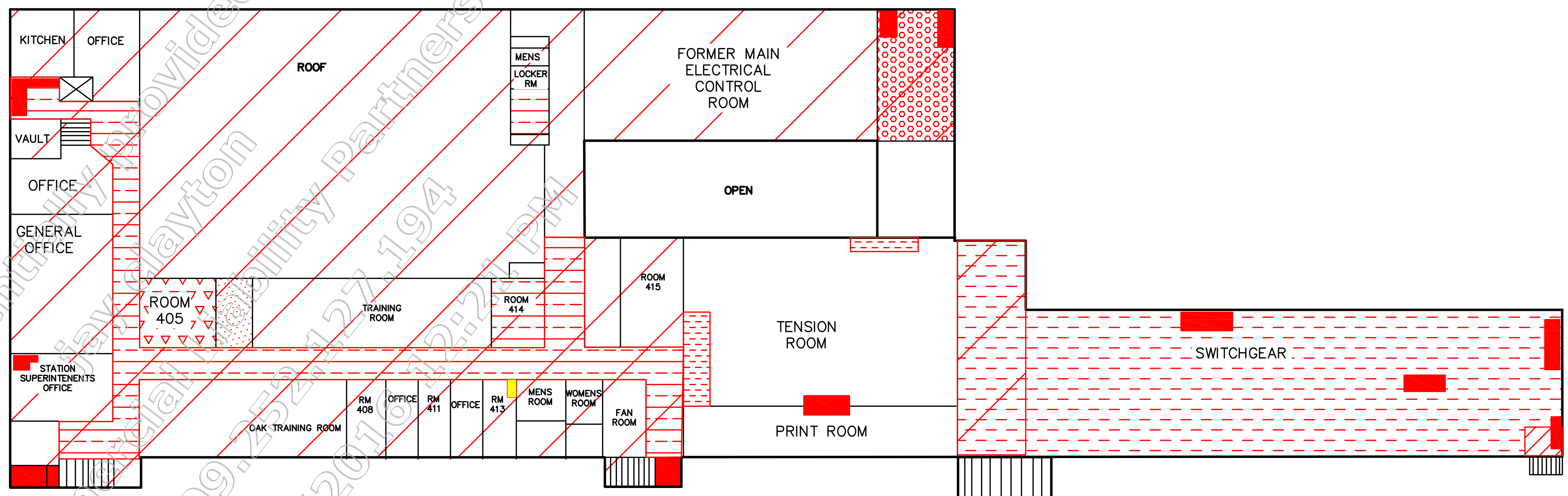
N

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/11/12		Environmental Resources Management	FIGURE 36

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINGS.dwg

CONFIRMED ASBESTOS LOCATION MAP
SWITCHHOUSE – FOURTH FLOOR



LEGEND

- PLASTER (MATERIAL 2)
- 1'X1' GRAY FLOOR TILE (MATERIAL 7)
- 9"X9" BLACK FLOOR TILE (MATERIAL 4)
- 1'X1' DARK TAN FLOOR TILE (MATERIAL 29)
- DUCT INSULATION (MATERIAL 20)
- MAROON SHEET FLOORING (MATERIAL 38)
- THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)
- TRANSITE (MATERIAL 40)

THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

N

Drawn By GML	ERM®	MIDWEST GENERATION – CRAWFORD 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 7/10/12		Environmental Resources Management	FIGURE 37

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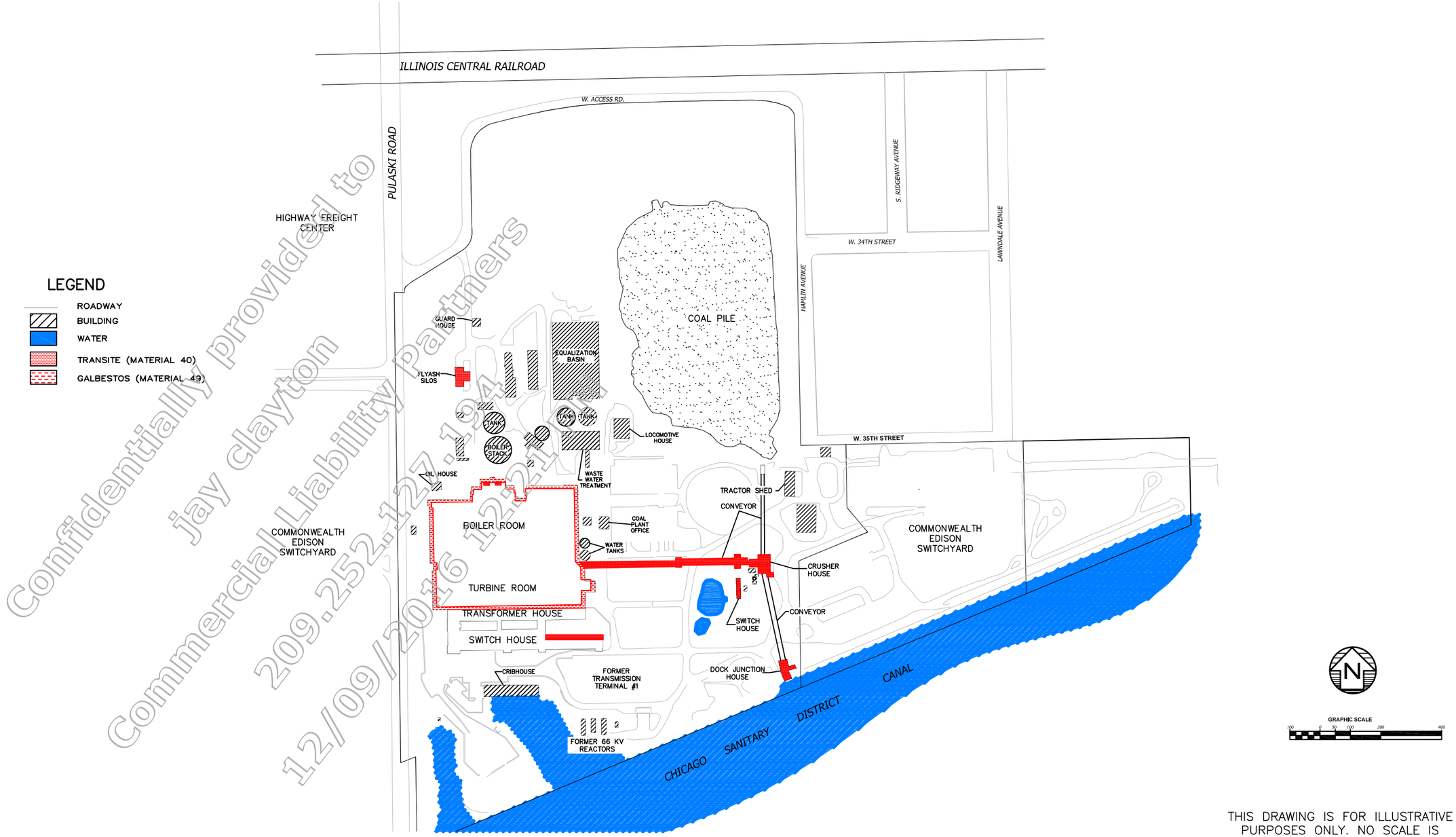
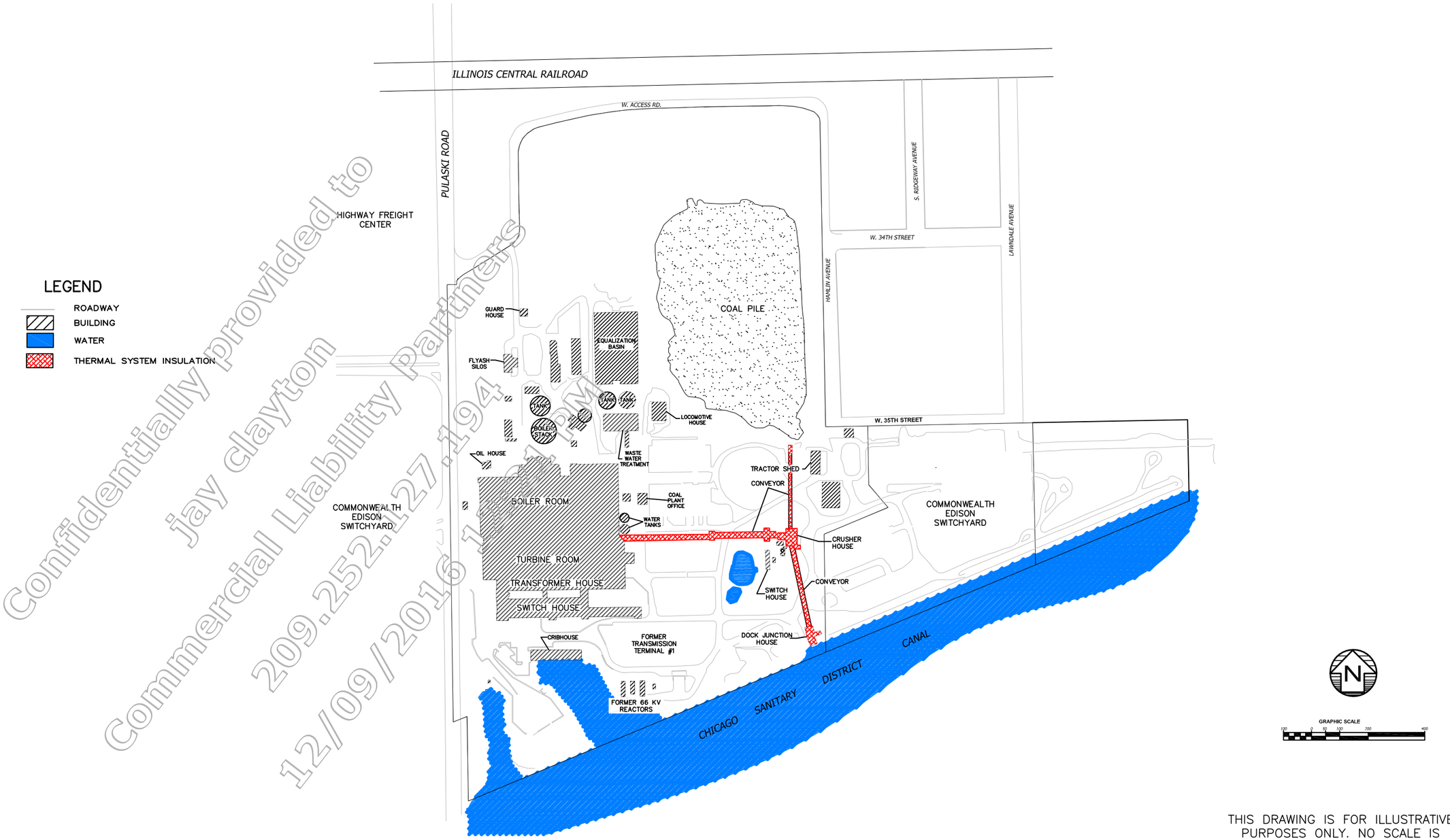
EXTERIOR CONFIRMED ASBESTOS LOCATION MAP 1



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 8/1/12		Environmental Resources Management	FIGURE 38

EXTERIOR CONFIRMED ASBESTOS LOCATION MAP 2



THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED.

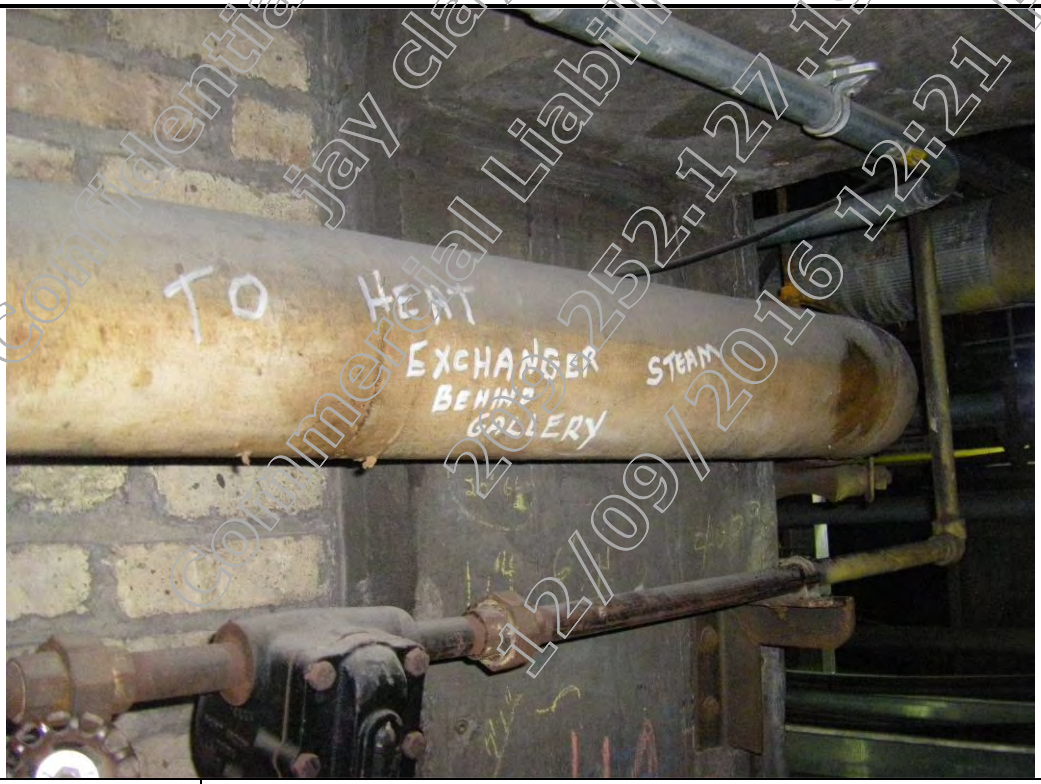
Drawn By GML	ERM®	**MIDWEST GENERATION – CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	CHK'D MB
CADD Review RMK			0168420
Date Drawn/Rev'd 8/1/12		Environmental Resources Management	FIGURE 39

Appendix B
Photolog

Photograph: *1*	*View of asbestos-containing plaster materials in the turbine room storage area*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *2*	*View of asbestos-containing 9″x9″ black floor tile and mastic in the switch house*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *3*	*View of gray floor tile. Asbestos-containing mastic is beneath the tile.*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*



Photograph: *4*	*View of typical asbestos-containing TSI in the basement area*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *5*	*View of typical asbestos-containing TSI in the basement area*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *6*	*View of typical asbestos-containing TSI in the crib house*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *7*	*View of typical asbestos-containing TSI in an out building*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *8*	View of typical asbestos-containing TSI in the switch house	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *9*	*View of typical asbestos-containing duct insulation*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *10*	*View of asbestos-containing green floor tile, gray floor tile, and associated mastic in the telecom room of the turbine room*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *11*	*View of asbestos-containing mastic beneath dark tan floor tile in assembly room storage area on the 4th floor of the switch house*

Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *12*	*View of white floor tile with tan streaks in the 1st floor of the turbine room. Asbestos-containing mastic is below the tile*

Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *13*	*View of asbestos-containing maroon sheet flooring in Room 413 of the switch house*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *14*	*View of asbestos-containing transite materials at the main plant*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *15*	*View of typical asbestos-containing transite panel in the switch house*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *16*	*View of asbestos-containing transite material in the basement of the switch house*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *17*	*View of typical asbestos-containing interior window glazing*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *18*	*View of typical asbestos-containing window caulk*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *19*	*View of cloth wrap on electrical equipment in the switch house – this material was not sampled due to safety concerns*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *20*	*View of boiler 5/6 insulation*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *21*	*View of Boiler 7/8 Insulation Wrap*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *22*	*View of ash hopper insulation*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *23*	*View of red galbestos on exterior*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Photograph: *24*	*View of 12"x 12" Gray floor tile over 12"x 12" Brown floor tile*	
Midwest Generation *3501 S. Pulaski Road* *Chicago, IL*	ERM	*Date: June 2012*

Appendix C
Laboratory Analytical Reports

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name: _____ Facility Name: Crawford

Date: 6/19/12 - 6/21/12 Client Name: MW Gen

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-001	2'x4' white ceiling tile w/ dots & fissures	4th floor switchhouse office	405	Yes ✓	Good	
CR-002			4th floor admin office			
CR-003			Room adj to 4th floor office admin			
CR-004	Plaster Material	Switchhouse	405	No	poor	
CR-005			414			
CR-006			3rd floor switchhouse			
CR-007		Turbine Building	3rd floor room adj to Ronny's office	NO	Poor	
CR-008			4th floor ~~switch~~ stairwell adj to air handler			
CR-009			2nd floor stair adj to Engine Room			
CR-010		Turbine Building	1st floor gen room	No	poor	
CR-011	1'x1' white ceiling tile	4th floor switchhouse office	405	yes	Good	
CR-012			405			
CR-013			405			
CR-014	Black 9"x9" floor tile	4th floor switchhouse office	405	No	Fair	
CR-015			405			
CR-016			405			
CR-017	2'x4' white ceiling tile w/ dots & fissures	4th floor switchhouse office	405	yes	Good	
CR-018			room adjacent to 4th floor office admin			
CR-019			4th floor men's room			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____
Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-020	Terazzo Flooring	4th floor Switchhouse office	4th floor Hallway outside 405	No	Good	
CR-021			4th floor mens restroom			
CR-022			outside Room 413			
CR-023	1'x1' dark gray floor tile with tan specs	4th floor Switchhouse office	4th floor Hallway outside 405	No	Good	
CR-024			4th floor outside elevator			
CR-025			4th floor hallway outside 413			
CR-026	Red & orange rubber stair tred	~~4th F~~ Stairwells in Switchhouse and turbine buildg office	4th floor stairwell	No	Good	
CR-027			4th floor switchhouse room adj to control room			
CR-028			4th floor stairwell adj to 2nd floor turbine			
CR-029	1'x1' light blue floor tile	4th floor Switchhouse office	4th floor admin office	No	Good	
CR-030			↓			
CR-031			↓			
CR-032	6" vinyl baseboard	4th floor Switchhouse office	4th floor admin office	No	Good	
CR-033			↓			
CR-034			↓			
CR-035	3" thermal pipe Insulation	4th floor Switchhouse & Office & turbine Bldg	4th floor room w/ couch	Yes	Fair	
CR-036			4th floor stairwell adj for room			
CR-037			2nd floor maintenance trailer room			
CR-038	Flooring under Carpet	4th floor switchhouse office	Room adj to 4th floor admin w/ cubicles	No	Fair	
CR-039			↓			
CR-040			↓			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:____________________ Facility Name:____________________

Date:____________________ Client Name:____________________

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-041	2'x2' white popcorn ceiling tile	4th floor switchhouse office	4th floor MGMT classroom	Yes	Fair	
CR-042			↓			
CR-043						
CR-044	3" dark tan vinyl baseboard	4th floor switchhouse office	4th floor MGMT classroom	No	Good	
CR-045			↓			
CR-046						
CR-047	2'x4' white ceiling tile w/ small & large dots	4th floor switchhouse office	413	Yes	Good	
CR-048			413			
CR-049			413			
CR-050	2'x2' white ceiling tile w/ fissures	4th floor switchhouse office	415	Yes	Good	
CR-051			415			
CR-052			415			
CR-053	4" thermal pipe insulation	4th floor switchhouse office & turbine building	4th floor print room	Yes	Fair	
CR-054			4th floor air handler room			
CR-055			1st floor turbine building outside gen			
CR-056	Interior window putty	Switchhouse & turbine building	4th floor print room	No	poor	
CR-057			3rd floor switchgear adj stairs			
CR-058			2nd floor maintenance tray room			
CR-059	1'x1' tan floor tile w/specs	Switchhouse office	414	No	good	
CR-060			414			
CR-061			414			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name: _____ Facility Name: _____

Date: _____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-062	Duct Insulation	Switchhouse	4th floor air handler room	Yes	good	
CR-063			↓			
CR-064			↓			
CR-065	Black vibration dampening	Switchhouse & turbine Bldg	4th floor air handler room	Yes	fair	
CR-066			2nd floor, Room 10			
CR-067			1st floor turbine TR11			
CR-068	~~Blk.~~ 3" Brown vinyl baseboard	turbine Bldg	~~2nd floor~~ 1st floor ~~near to fan room~~	No ~~Yes~~	good ~~fair~~	
CR-069			~~2nd floor~~ 1st floor ~~near to fan room~~			
CR-070			~~outside 2nd floor fan room~~ 1st floor			
CR-071	fan vibration Dampening Cloth	turbine Bldg	2nd floor near to fan room	Yes	fair	
CR-072			↓			
CR-073			↓			
CR-074	9"x9" green Floor tile	turbine Bldg	2nd floor telecom room	No	fair	
CR-075			↓			
CR-076			↓			
CR-077	9"x9" gray floor tile	turbine Building	2nd floor telecom room	No	Fair	
CR-078			↓			
CR-079			↓			
CR-080	Drywall System	Switchhouse & turbine Building	4th floor admin offices	Yes	good	
CR-081			2nd floor admin Room 8/9			
~~CR-082~~			2nd floor admin Room 11			

CR-081A

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____
Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-082	Thermal	Turbine	Basement			
CR-083	Pipe	Bldg	↓			
CR-084	Insulation		↓			
CR-085	Pipe	Turbine & Switchgear	Air Handling/control Room			
CR-086	Fitting		3rd Fl. at Switchgear			
CR-087	Insulation		Basement			
CR-088	Dark Tan	Switchgear	Store Room/Assembly			
CR-089	Floortile		↓			
CR-090	w/ Brown & Tan Streaks		↓			
CR-091	Spray-on	Basement	Basement Column			
CR-092	Insulation		↓			
CR-093	↓	↓				
CR-094			↓			
CR-095			↓			
CR-096						
CR-097			↓			
CR-098	Black		1st Floor Turbine Bldg. Tst Lab			
CR-099	Vinyl Baseboard & Mastic		↓			
CR-100			↓			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____
Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-101	1'x1' White F.T. & Transite / Mastic	Turbine Bldg	1st Floor			
CR-102			↓			
CR-103			↓			
CR-104	Exterior Window Caulk	Switch House	South Wall			
CR-105			South Wall			
CR-106			South Wall			
CR-107	Thermal Insulation	Basement Turbine Switchgear	Basement			
CR-108			↓			
CR-109			↓			
CR-110	1'x1' Brown & Tan F.T. & Mastic	Turbine Bldg	2nd FL Office			
CR-111			↓			
CR-112			↓			
CR-113	Maroon Vinyl Baseboard & Mastic	Turbine Bldg	↓			
CR-114			↓			
CR-115			2nd FL Rooms			
CR-116	Concrete Sub Floor	↓	↓			
CR-117			↓			
CR-118			↓			
CR-119	Maroon sheet Flooring	Switchgear	Room 413			
CR-120			↓			
CR-121			↓			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____

Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-122	2'x2' white C.T. w/Large and small dots	Turbine Bldg	2nd FL			
CR-123	↓	↓	↓			
CR-124	↓	↓	↓			
CR-125	Transite Panels	Switchgear Rooms	4th FL			
CR-126	↓	↓	3rd FL			
CR-127	↓	↓	2nd FL			
CR-128	cement wall covering	Switchgear Rooms	4th Floor			
CR-129	↓	↓	4th Floor			
CR-130	↓	↓	2nd Floor			
CR-131	↓	↓	2nd Floor			
CR-132	↓	↓	2nd Floor			
CR-133	↓	↓	1st Floor			
CR-134	↓	↓	1st Floor			
			↓			
CR-135			↑			
CR-136	Spray-on Insulation	Crib House	Crib House Mezzanine			
CR-137	↓	↓	↓			
CR-138	↓	↓	↓			
CR-139						
CR-140						
CR-141			↓			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name: _____ Facility Name: _____

Date: _____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-142	Interior window caulk	Crib House	Crib House Mezzanine	Y	P	
CR-143			↓			
CR-144			↓			
CR-145	Exterior window caulk	Crib House	Crib House window	Y	P	
CR-146			↓			
CR-147			↓			
CR-148	Boiler Insulation	Boiler Room	Boiler 6-4	Y	P	
CR-149			Boiler 6-5			
CR-150			Boiler 6-3			
CR-151	Boiler Insulation	Boiler Room	6th Floor			
CR-152			↓			
CR-153			↓			
CR-154	Boiler Insulation	Boiler Room	Boiler 8 4th Level			
CR-155			↓			
CR-156			↓			
CR-157	Ash Hopper Insulation	Boiler Room	Boiler 8 Ash Hopper 4th Level Mezzanine			
CR-158			↓			
CR-159			↓			
CR-160	Red corrugated galbestos	Exterior	SEC Turbine Room			
CR-161			NEC Boiler Room			
CR-162			NEC Boiler Room			

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name: _____ Facility Name: _____

Date: _____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-163	Red Corrugated galberts.	~~Mechanical~~ Exterior	North center Fan Room			
CR-164			Level 8 elevator			
CR-165			Level 8 elevator			
CR-166	↓		Level 8 elevator			
CR-167	2'x4' white C.T. w/small dots & fissures	Control Room	Control Room			
CR-168			↓			
CR-169						
CR-170	Housing Insulation	Basement of Turbine Room	Basement			
CR-171			↓			
CR-172						
CR-173	Gray Transite Panel	Level 2 Fan Floor	East shell			
CR-174			West shell			
CR-175			West shell			
CR-176	window glazing Interior	Boiler Room	L2 Fan Floor			
CR-177			NW stairs			
CR-178			NW stairs			
CR-179	Plaster	Boiler House	Boiler House			
CR-180			↓			
CR-181						

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name: _____ Facility Name: _____

Date: _____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-182	Plaster	Boiler House	Boiler House			
CR-183	↓	↓	↓			
CR-184						
CR-185						
CR-186						
CR-187	Duct Insulation	2nd FL Locker room Boiler Hse	2nd Floor			
CR-188			↓			
CR-189						
CR-190	1'x1' gray F.T. & Black Mastic	Boiler House	4th Floor weight Room			
CR-191			↓			
CR-192						
CR-193	Drywall	Boiler House	4th FL weight Room			
CR-194			↓			
CR-195						
CR-196	2'x4' white C.T. & small dots & small fissures	Boiler House	4th FL weight Room			
CR-197			↓			
CR-198						
CR-199	1'x1' gray F.T. over 1'x1' Brown F.T. & Mastic	Boiler House	old security office			
CR-200			↓			
CR-201						

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____

Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-202	1'x1' Beige F.T.w/ white specks & Mastic	Boiler House	Store Room			
CR-203						
CR-204						
CR-205	2'x4' white C.T.w/ dotsd slashes	Boiler House	Store Room			
CR-206						
CR-207						
CR-208	window Caulk	Exterior Boiler House	Boiler House			
CR-209						
CR-210						
CR-211	Vibration dampener caulk	Boiler House	Levels			
CR-212						
CR-213						

ASBESTOS SURVEY BULK SAMPLE LOG

ERM

Inspector Name:_____ Facility Name:_____

Date:_____ Client Name: _____

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-214	Tank	WWTP	Sodium Hydroxide Tank	Y	G	
CR-215	Insulation					
CR-216						
CR-217	Interior	WWTP	Interior Window	Y	P	
CR-218	Window					
CR-219	Caulk					
CR-220	Exterior	Locomotive	Welder on Exterior wall	Y	P	
CR-221	Window	House				
CR-222	Caulk					
CR-223	2'x2'	Coal	Coal Plant Office	Y	G	
CR-224	white	plant				
CR-225	C.T. w/dots & specks	office				
CR-226	1'x1' gray floor tile	Guard Shack	Guard Shack	N	good	
CR-227						
CR-228						

EMSL Analytical, Inc.
2225 W. Hubbard Street, Chicago, IL 60612
Phone/Fax: (773) 313-0099 / (773) 313-0139
http://www.emsl.com chicagolab@emsl.com

EMSL Order: 261204015
CustomerID: ERMI78
CustomerPO:
ProjectID:

Attn: **Mat Aigner**
ERM, Inc.
One Continental Tower
1701 Golf Road, Suite 1-1000
Rolling Meadows, IL 60008

Phone: (847) 258-8900
Fax: (847) 258-8901
Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012
Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**		**% Type**
CR-001 *261204015-0001*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-002 *261204015-0002*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-003 *261204015-0003*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Non-Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-004-Skim Coat *261204015-0004*	SWITCHHOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		**None Detected**
CR-004-Base Coat *261204015-0004A*	SWITCHHOUSE PLASTER	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**
CR-005-Skim Coat *261204015-0005*	SWITCHHOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		**None Detected**
CR-005-Base Coat *261204015-0005A*	SWITCHHOUSE PLASTER	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**

Analyst(s)

Alice Hillegass (141) *Nick Neu (78)*
Dahlia Zyhowski (34)

James Hahn, Laboratory Manager
or other approved signatory

Initial report from 06/26/2012 13:13:35

EMSL Analytical, Inc.
2225 W. Hubbard Street, Chicago, IL 60612
Phone/Fax: (773) 313-0099 / (773) 313-0139
http://www.emsl.com chicagolab@emsl.com

EMSL Order:	261204015
CustomerID:	ERMI78
CustomerPO:	
ProjectID:	

Attn: **Mat Aigner**
ERM, Inc.
One Continental Tower
1701 Golf Road, Suite 1-1000
Rolling Meadows, IL 60008

Project: **0168420**

Phone:	(847) 258-8900
Fax:	(847) 258-8901
Received:	06/21/12 3:14 PM
Analysis Date:	6/26/2012
Collected:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos	
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**%**	**Type**
CR-006-Texture *261204015-0006*	SWITCHHOUSE PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**
CR-006-Base Coat *261204015-0006A*	SWITCHHOUSE PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**<1%**	**Chrysotile**
CR-007-Brick *261204015-0007*	TURBINE BUILDING PLASTER	Orange Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**
		Sample 7 is not homogeneous with samples 8 and 9.				
CR-007-Mortar *261204015-0007A*	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous		98% Non-fibrous (other)	**2%**	**Chrysotile**
		Sample 7 is not homogeneous with samples 8 and 9.				
CR-008-Skim Coat *261204015-0008*	TURBINE BUILDING PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		**None Detected**
CR-008-Base Coat *261204015-0008A*	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**
CR-009-Skim Coat *261204015-0009*	TURBINE BUILDING PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		**None Detected**
CR-009-Base Coat *261204015-0009A*	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)		**None Detected**

Analyst(s)

Alice Hillegass (141) *Nick Neu (78)*
Dahlia Zyhowski (34)

James Hahn, Laboratory Manager
or other approved signatory

Initial report from 06/26/2012 13:13:35

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2225 W. Hubbard Street, Chicago, IL 60612
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EMSL Order:	261204015
CustomerID:	ERMI78
CustomerPO:	
ProjectID:	

Attn: **Mat Aigner**
ERM, Inc.
One Continental Tower
1701 Golf Road, Suite 1-1000
Rolling Meadows, IL 60008

Project: **0168420**

Phone:	(847) 258-8900
Fax:	(847) 258-8901
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Analysis Date:	6/26/2012
Collected:	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos			Asbestos	
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**	
CR-010 *261204015-0010*	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous			96% Non-fibrous (other)	**4%**	**Chrysotile**
CR-011 *261204015-0011*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	98%	Cellulose	2% Non-fibrous (other)	**None Detected**	
CR-012 *261204015-0012*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	98%	Cellulose	2% Non-fibrous (other)	**None Detected**	
CR-013 *261204015-0013*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Brown Fibrous Heterogeneous	98%	Cellulose	2% Non-fibrous (other)	**None Detected**	
CR-014-Floor Tile *261204015-0014*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous			96% Non-fibrous (other)	**4%**	**Chrysotile**
CR-014-Mastic 1 *261204015-0014A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**	
CR-014-Mastic 2 *261204015-0014B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous			93% Non-fibrous (other)	**7%**	**Chrysotile**

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
CR-015-Floor Tile *261204015-0015*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-015-Mastic 1 *261204015-0015A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-015-Mastic 2 *261204015-0015B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-016-Floor Tile *261204015-0016*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-016-Mastic *261204015-0016A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-017 *261204015-0017*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-018 *261204015-0018*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-019 *261204015-0019*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Gray Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-020 *261204015-0020*	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-021 *261204015-0021*	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-022 *261204015-0022*	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-023-Floor Tile 1 *261204015-0023*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-023-Floor Tile 2 *261204015-0023A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-023-Mastic *261204015-0023B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	**2% Chrysotile**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-023-Leveler *261204015-0023C*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	**None Detected**
CR-024-Floor Tile 1 *261204015-0024*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-024-Mastic *261204015-0024A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-024-Floor Tile 2 *261204015-0024B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-024-Mastic *261204015-0024C*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-025-Floor Tile 1 *261204015-0025*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-025-Mastic 1 *261204015-0025A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-025-Floor Tile 2 *261204015-0025B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-025-Mastic 2 *261204015-0025C*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-026-Tread *261204015-0026*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Rust Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-026-Glue *261204015-0026A*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Black/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-027-Tread *261204015-0027*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Purple Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-027-Glue *261204015-0027A*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-028-Tread *261204015-0028*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Purple Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-028-Glue *261204015-0028A*	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Black/Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-029-Floor Tile *261204015-0029*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-029-Mastic *261204015-0029A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-029-Leveler *261204015-0029B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-030-Floor Tile *261204015-0030*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-030-Mastic *261204015-0030A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-030-Leveler *261204015-0030B*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-031-Floor Tile *261204015-0031*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Green Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-031-Mastic *261204015-0031A*	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-032-Cove Base *261204015-0032*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-032-Mastic *261204015-0032A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-033-Cove Base *261204015-0033*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-033-Mastic *261204015-0033A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-034-Cove Base *261204015-0034*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-034-Mastic *261204015-0034A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-035 *261204015-0035*	4TH FL SWITCHHOUSE OFFICE THERMAL PIPE INSULATION	White Non-Fibrous Heterogeneous		75% Non-fibrous (other)	**25% Chrysotile**
CR-036 *261204015-0036*	4TH FL SWITCHHOUSE OFFICE THERMAL PIPE INSULATION				**Stop Positive (Not Analyzed)**
CR-037 *261204015-0037*	4TH FL SWITCHHOUSE OFFICE THERMAL PIPE INSULATION				**Stop Positive (Not Analyzed)**

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Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-038-Flooring *261204015-0038*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (other)	**None Detected**
CR-038-Mastic *261204015-0038A*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-039-Flooring *261204015-0039*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (other)	**None Detected**
CR-039-Mastic *261204015-0039A*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-040-Flooring *261204015-0040*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

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Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
CR-040-Mastic *261204015-0040A*	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-041 *261204015-0041*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other)	**None Detected**
CR-042 *261204015-0042*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	95%	Cellulose	5% Non-fibrous (other)	**None Detected**
CR-043 *261204015-0043*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other)	**None Detected**
CR-044-Cove Base *261204015-0044*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-044-Mastic *261204015-0044A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**

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Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-045-Cove Base *261204015-0045*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-045-Mastic *261204015-0045A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-046-Cove Base *261204015-0046*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-046-Mastic *261204015-0046A*	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-047 *261204015-0047*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-048 *261204015-0048*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-049 *261204015-0049*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wool	20% Non-fibrous (other)	**None Detected**

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Dahlia Zyhowski (34)

James Hahn, Laboratory Manager
or other approved signatory

Initial report from 06/26/2012 13:13:35

EMSL Analytical, Inc.
2225 W. Hubbard Street, Chicago, IL 60612
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EMSL Order:	261204015
CustomerID:	ERMI78
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Attn: **Mat Aigner**
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Project: **0168420**

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-050 *261204015-0050*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Gray Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	**None Detected**
CR-051 *261204015-0051*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Gray Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	**None Detected**
CR-052 *261204015-0052*	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Gray Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	**None Detected**
CR-053 *261204015-0053*	4TH FL SWITCHHOUSE &TURBINE BLDG PIPE INSULATION	Various Fibrous Heterogeneous		50% Non-fibrous (other)	**50% Chrysotile**
CR-054 *261204015-0054*	4TH FL SWITCHHOUSE &TURBINE BLDG PIPE INSULATION				**Stop Positive (Not Analyzed)**
CR-055 *261204015-0055*	4TH FL SWITCHHOUSE &TURBINE BLDG PIPE INSULATION				**Stop Positive (Not Analyzed)**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-056 *261204015-0056*	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-057 *261204015-0057*	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	White Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (other)	**None Detected**
CR-058 *261204015-0058*	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-059-Floor Tile *261204015-0059*	SWITCHHOUSE OFFICE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-059-Mastic *261204015-0059A*	SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-060-Floor Tile *261204015-0060*	SWITCHHOUSE OFFICE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-060-Mastic *261204015-0060A*	SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
CR-061-Floor Tile *261204015-0061*	SWITCHHOUSE OFFICE FLOOR TILE	Tan Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-061-Mastic *261204015-0061A*	SWITCHHOUSE OFFICE FLOOR TILE	Black/Yellow Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-062 *261204015-0062*	SWITCHHOUSE DUCT INSULATION	Gray Fibrous Heterogeneous			50% Non-fibrous (other)	**50% Chrysotile**
CR-063 *261204015-0063*	SWITCHHOUSE DUCT INSULATION					**Stop Positive (Not Analyzed)**
CR-064 *261204015-0064*	SWITCHHOUSE DUCT INSULATION					**Stop Positive (Not Analyzed)**
CR-065 *261204015-0065*	SWITCHHOUSE & TURBINE BLDG VIORATICH DAMPENING	Black Fibrous Heterogeneous	100% Cellulose		0% Non-fibrous (other)	**None Detected**
CR-066 *261204015-0066*	SWITCHHOUSE & TURBINE BLDG VIORATICH DAMPENING	Black Non-Fibrous Heterogeneous	15% Synthetic		85% Non-fibrous (other)	**None Detected**

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			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
CR-067 *261204015-0067*	SWITCHHOUSE & TURBINE BLDG VIORATICH DAMPENING	Black Non-Fibrous Heterogeneous	15%	Synthetic	85%	Non-fibrous (other)	**None Detected**
CR-068-Cove Base *261204015-0068*	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-068-Mastic *261204015-0068A*	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-069-Cove Base *261204015-0069*	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-069-Mastic *261204015-0069A*	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-070-Cove Base *261204015-0070*	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-070-Mastic *261204015-0070A*	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
CR-071 *261204015-0071*	TURBINE BLDG VIORATICHDAMPENING CLOTH	Tan Fibrous Homogeneous	100%	Cellulose	0%	Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-072 *261204015-0072*	TURBINE BLDG VIORATICHDAMPENING CLOTH	Tan Fibrous Homogeneous	100% Cellulose	0% Non-fibrous (other)	**None Detected**
CR-073 *261204015-0073*	TURBINE BLDG VIORATICHDAMPENING CLOTH	Black Fibrous Homogeneous	100% Cellulose	0% Non-fibrous (other)	**None Detected**
CR-074 *261204015-0074*	TURBINE BLDG FLOOR TILE	Green Non-Fibrous Heterogeneous		95% Non-fibrous (other)	**5% Chrysotile**
CR-075 *261204015-0075*	TURBINE BLDG FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-076 *261204015-0076*	TURBINE BLDG FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-077-Floor Tile *261204015-0077*	TURBINE BLDG FLOOR TILE	Gray Non-Fibrous Homogeneous		93% Non-fibrous (other)	**7% Chrysotile**
CR-077-Mastic *261204015-0077A*	TURBINE BLDG FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	**2% Chrysotile**
CR-078 *261204015-0078*	TURBINE BLDG FLOOR TILE				**Stop Positive (Not Analyzed)**

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
CR-079 *261204015-0079*	TURBINE BLDG FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-080-Joint Compound *261204015-0080*	SWITCHHOUSE & TURBINE BLDG DRYWALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-080-Drywall *261204015-0080A*	SWITCHHOUSE & TURBINE BLDG DRYWALL	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-081 *261204015-0081*	SWITCHHOUSE & TURBINE BLDG DRYWALL	White Non-Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (other)	**None Detected**
CR-082 *261204015-0082*	SWITCHHOUSE & TURBINE BLDG DRYWALL	White Non-Fibrous Heterogeneous	10% Glass 10% Cellulose Two sample bags labeled 82.	80% Non-fibrous (other)	**None Detected**
CR-082 *261204015-0083*	TURBINE BLDG PIPE INSULATION	Brown Non-Fibrous Heterogeneous	Two sample bags labeled 82.	90% Non-fibrous (other)	**10% Chrysotile**
CR-083 *261204015-0084*	TURBINE BLDG PIPE INSULATION				**Stop Positive (Not Analyzed)**

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
CR-084 *261204015-0085*	TURBINE BLDG PIPE INSULATION				**Not Submitted**
CR-085 *261204015-0086*	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION	Brown/White Fibrous Heterogeneous	30% Hair 5% Synthetic	35% Non-fibrous (other)	**30% Chrysotile**
CR-086 *261204015-0087*	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION				**Stop Positive (Not Analyzed)**
CR-087 *261204015-0088*	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION				**Stop Positive (Not Analyzed)**
CR-088-Floor Tile *261204015-0089*	SWITCHHOUSE FLOOR TILE	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-088-Mastic *261204015-0089A*	SWITCHHOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		97% Non-fibrous (other)	**3% Chrysotile**
CR-089-Floor Tile *261204015-0090*	SWITCHHOUSE FLOOR TILE	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-089-Mastic *261204015-0090A*	SWITCHHOUSE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-090-Floor Tile *261204015-0091*	SWITCHHOUSE FLOOR TILE	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-090-Mastic *261204015-0091A*	SWITCHHOUSE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-091 *261204015-0092*	BSMT SPRAY-ON INSULATION	White/Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-092 *261204015-0093*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-093 *261204015-0094*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-094 *261204015-0095*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-095 *261204015-0096*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

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CR-096 *261204015-0097*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-097 *261204015-0098*	BSMT SPRAY-ON INSULATION	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-098-Cove Base *261204015-0099*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-098-Mastic *261204015-0099A*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-099-Cove Base *261204015-0100*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-099-Mastic *261204015-0100A*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-100-Cove Base *261204015-0101*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**	
CR-100-Mastic *261204015-0101A*	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**	
CR-101-Floor Tile *261204015-0102*	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**	
CR-101-Mastic *261204015-0102A*	TURBINE BLDG FLOOR TILE & MASTIC	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	2%	**Chrysotile**
CR-102-Floor Tile *261204015-0103*	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**	
CR-102-Mastic *261204015-0103A*	TURBINE BLDG FLOOR TILE & MASTIC				**Stop Positive (Not Analyzed)**	
CR-103-Floor Tile *261204015-0104*	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**	
CR-103-Mastic *261204015-0104A*	TURBINE BLDG FLOOR TILE & MASTIC				**Stop Positive (Not Analyzed)**	
CR-104 *261204015-0105*	SWITCHHOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**	

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-105 *261204015-0106*	SWITCHHOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**<1% Chrysotile**
CR-106 *261204015-0107*	SWITCHHOUSE EXTERIOR WINDOW CAULK				**Not Submitted**
CR-107 *261204015-0108*	BSMT TURBINE & SWITCHHOUSE THERMAL INSULATION	White Fibrous Heterogeneous		40% Non-fibrous (other)	**60% Chrysotile**
CR-108 *261204015-0109*	BSMT TURBINE & SWITCHHOUSE THERMAL INSULATION				**Stop Positive (Not Analyzed)**
CR-109 *261204015-0110*	BSMT TURBINE & SWITCHHOUSE THERMAL INSULATION				**Stop Positive (Not Analyzed)**
CR-110-Floor Tile *261204015-0111*	TURBINE BLDG FLOOR TILE & MASTIC	Tan/Copper Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-110-Mastic *261204015-0111A*	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)

Alice Hillegass (141) *Nick Neu (78)*
Dahlia Zyhowski (34)

James Hahn, Laboratory Manager
or other approved signatory

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Attn: **Mat Aigner**
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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-111-Floor Tile *261204015-0112*	TURBINE BLDG FLOOR TILE & MASTIC	Tan/Copper Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-111-Mastic *261204015-0112A*	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-112-Floor Tile *261204015-0113*	TURBINE BLDG FLOOR TILE & MASTIC	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-112-Mastic *261204015-0113A*	TURBINE BLDG FLOOR TILE & MASTIC	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-113-Cove Base *261204015-0114*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-113-Mastic *261204015-0114A*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-114-Cove Base *261204015-0115*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-114-Mastic *261204015-0115A*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-115-Cove Base *261204015-0116*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Red Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-115-Mastic *261204015-0116A*	TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-116-Sub Floor *261204015-0117*	TURBINE BLDG CONCRETE SUB FLOOR	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-116-Mastic *261204015-0117A*	TURBINE BLDG CONCRETE SUB FLOOR	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-117-Sub Floor *261204015-0118*	TURBINE BLDG CONCRETE SUB FLOOR	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-117-Mastic *261204015-0118A*	TURBINE BLDG CONCRETE SUB FLOOR	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-118-Sub-Floor *261204015-0119*	TURBINE BLDG CONCRETE SUB FLOOR	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-118-Mastic *261204015-0119A*	TURBINE BLDG CONCRETE SUB FLOOR	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-119 *261204015-0120*	SWITCHGEAR SHEET FLOORING	Red/Black Non-Fibrous Heterogeneous		80% Non-fibrous (other)	**20% Chrysotile**
CR-120 *261204015-0121*	SWITCHGEAR SHEET FLOORING				**Stop Positive (Not Analyzed)**
CR-121 *261204015-0122*	SWITCHGEAR SHEET FLOORING				**Stop Positive (Not Analyzed)**
CR-122 *261204015-0123*	TURBINE BLDG CEILING TILE	Gray Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-123 *261204015-0124*	TURBINE BLDG CEILING TILE	Gray Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-124 *261204015-0125*	TURBINE BLDG CEILING TILE	Gray Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-125 *261204015-0126*	SWITCHGEAR ROOM TRANSITE PANELS	Gray Fibrous Heterogeneous		70% Non-fibrous (other)	**30% Chrysotile**
CR-126 *261204015-0127*	SWITCHGEAR ROOM TRANSITE PANELS				**Stop Positive (Not Analyzed)**
CR-127 *261204015-0128*	SWITCHGEAR ROOM TRANSITE PANELS				**Stop Positive (Not Analyzed)**
CR-128 *261204015-0129*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-129 *261204015-0130*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-130 *261204015-0131*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-131 *261204015-0132*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
CR-132 *261204015-0133*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-133 *261204015-0134*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-134 *261204015-0135*	SWITCHGEAR ROOMS CEMENT WALL COVERING	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-135 *261204015-0136*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% 20%	Cellulose Glass	40% Non-fibrous (other)	**None Detected**
CR-136 *261204015-0137*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% 20%	Cellulose Glass	40% Non-fibrous (other)	**None Detected**
CR-137 *261204015-0138*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% 20%	Cellulose Glass	40% Non-fibrous (other)	**None Detected**
CR-138 *261204015-0139*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% 20%	Cellulose Glass	40% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-139 *261204015-0140*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% Cellulose 20% Glass	40% Non-fibrous (other)	**None Detected**
CR-140 *261204015-0141*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% Cellulose 20% Glass	40% Non-fibrous (other)	**None Detected**
CR-141 *261204015-0142*	CRIB HOUSE SPRAY-ON INSULATION	Brown Fibrous Heterogeneous	40% Cellulose 20% Min. Wool	40% Non-fibrous (other)	**None Detected**
CR-142 *261204015-0143*	CRIB HOUSE INTERIOR WINDOW CAULK				**Insufficient Material**
		No caulking found to be present in sample. Bag contained only debris.			
CR-143 *261204015-0144*	CRIB HOUSE INTERIOR WINDOW CAULK	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-144 *261204015-0145*	CRIB HOUSE INTERIOR WINDOW CAULK	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-145 *261204015-0146*	CRIB HOUSE EXTERIOR WINDOW CAULK	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-146 *261204015-0147*	CRIB HOUSE EXTERIOR WINDOW CAULK	White/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-147 *261204015-0148*	CRIB HOUSE EXTERIOR WINDOW CAULK	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-148 *261204015-0149*	BOILER ROOM BOILER INSULATION	Brown Fibrous Heterogeneous		60% Non-fibrous (other)	**20% Chrysotile** **20% Amosite**
CR-149 *261204015-0150*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-150 *261204015-0151*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-151 *261204015-0152*	BOILER ROOM BOILER INSULATION	Gray Fibrous Heterogeneous	75% Min. Wool	21% Non-fibrous (other)	**4% Chrysotile**
CR-152 *261204015-0153*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-153 *261204015-0154*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-154 *261204015-0155*	BOILER ROOM BOILER INSULATION	Brown Fibrous Heterogeneous	50% Min. Wool	40% Non-fibrous (other)	**10% Chrysotile**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-155 *261204015-0156*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-156 *261204015-0157*	BOILER ROOM BOILER INSULATION				**Stop Positive (Not Analyzed)**
CR-157 *261204015-0158*	BOILER ROOM INSULATION	Gray Fibrous Heterogeneous		50% Non-fibrous (other)	**50% Chrysotile**
CR-158 *261204015-0159*	BOILER ROOM INSULATION				**Stop Positive (Not Analyzed)**
CR-159 *261204015-0160*	BOILER ROOM INSULATION				**Stop Positive (Not Analyzed)**
CR-160 *261204015-0161*	EXTERIOR CORRUGATED GALBESTOS	Red Non-Fibrous Heterogeneous		70% Non-fibrous (other)	**30% Chrysotile**
CR-161 *261204015-0162*	EXTERIOR CORRUGATED GALBESTOS				**Stop Positive (Not Analyzed)**
CR-162 *261204015-0163*	EXTERIOR CORRUGATED GALBESTOS				**Stop Positive (Not Analyzed)**

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			Non-Asbestos			Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous		% Type
CR-163 *261204015-0164*	EXTERIOR CORRUGATED GALBESTOS					**Stop Positive (Not Analyzed)**
CR-164 *261204015-0165*	EXTERIOR CORRUGATED GALBESTOS					**Stop Positive (Not Analyzed)**
CR-165 *261204015-0166*	EXTERIOR CORRUGATED GALBESTOS					**Stop Positive (Not Analyzed)**
CR-166 *261204015-0167*	EXTERIOR CORRUGATED GALBESTOS					**Stop Positive (Not Analyzed)**
CR-167 *261204015-0168*	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-168 *261204015-0169*	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-169 *261204015-0170*	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)		**None Detected**
CR-170 *261204015-0171*	BSMT TURBINE ROOM HOUSING INSULATION	Gray Non-Fibrous Heterogeneous		90% Non-fibrous (other)	**10%**	**Chrysotile**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-171 *261204015-0172*	BSMT TURBINE ROOM HOUSING INSULATION				**Stop Positive (Not Analyzed)**
CR-172 *261204015-0173*	BSMT TURBINE ROOM HOUSING INSULATION				**Stop Positive (Not Analyzed)**
CR-173 *261204015-0174*	LEVEL 2 FAN FLOOR TRANSITE PANEL	Gray Non-Fibrous Heterogeneous		75% Non-fibrous (other)	**25% Chrysotile**
CR-174 *261204015-0175*	LEVEL 2 FAN FLOOR TRANSITE PANEL				**Stop Positive (Not Analyzed)**
CR-175 *261204015-0176*	LEVEL 2 FAN FLOOR TRANSITE PANEL				**Stop Positive (Not Analyzed)**
CR-176 *261204015-0177*	BOILER ROOM WINDOW GLAZING INTERIOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-177 *261204015-0178*	BOILER ROOM WINDOW GLAZING INTERIOR	Gray Non-Fibrous Homogeneous		97% Non-fibrous (other)	**3% Chrysotile**
CR-178 *261204015-0179*	BOILER ROOM WINDOW GLAZING INTERIOR				**Stop Positive (Not Analyzed)**

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			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
CR-179-Skim Coat *261204015-0180*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-179-Base Coat *261204015-0180A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-180-Skim Coat *261204015-0181*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-180-Base Coat *261204015-0181A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-181-Skim Coat *261204015-0182*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
CR-181-Base Coat *261204015-0182A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	**None Detected**
CR-182 *261204015-0183*	BOILER HOUSE PLASTER	White Non-Fibrous Heterogeneous	10%	Cellulose	90% Non-fibrous (other)	**None Detected**
CR-183-Skim Coat *261204015-0184*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**

Analyst(s)

Alice Hillegass (141) *Nick Neu (78)*
Dahlia Zyhowski (34)

James Hahn, Laboratory Manager
or other approved signatory

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-183-Base Coat *261204015-0184A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-184-Skim Coat *261204015-0185*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-184-Base Coat *261204015-0185A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-185-Skim Coat *261204015-0186*	BOILER HOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-185-Base Coat *261204015-0186A*	BOILER HOUSE PLASTER	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-186 *261204015-0187*	BOILER HOUSE PLASTER	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-187 *261204015-0188*	2ND FL LOCKERROOM BOILER HOUSE DUCT INSULATION	White Fibrous Heterogeneous	20% Min. Wool	30% Non-fibrous (other)	**50% Chrysotile**

Analyst(s)

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-188 *261204015-0189*	2ND FL LOCKERROOM BOILER HOUSE DUCT INSULATION				**Stop Positive (Not Analyzed)**
CR-189 *261204015-0190*	2ND FL LOCKERROOM BOILER HOUSE DUCT INSULATION				**Stop Positive (Not Analyzed)**
CR-190-Floor Tile *261204015-0191*	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-190-Mastic *261204015-0191A*	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-191-Floor Tile *261204015-0192*	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-191-Mastic *261204015-0192A*	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-192-Floor Tile *261204015-0193*	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
CR-192-Mastic *261204015-0193A*	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-193 *261204015-0194*	BOILER HOUSE DRYWALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-194 *261204015-0195*	BOILER HOUSE DRYWALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-195 *261204015-0196*	BOILER HOUSE DRYWALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-196 *261204015-0197*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-197 *261204015-0198*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-198 *261204015-0199*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	20% Cellulose 60% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-199-Floor Tile *261204015-0200*	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-199-Mastic *261204015-0200A*	BOILER HOUSE FLOOR TILE	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
CR-200-Floor Tile 1 *261204015-0201*	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
		Insufficient mastic material.			
CR-200-Floor Tile 2 *261204015-0201A*	BOILER HOUSE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-200-Mastic *261204015-0201B*	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	**2% Chrysotile**
CR-201-Floor Tile *261204015-0202*	BOILER HOUSE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-201-Mastic *261204015-0202A*	BOILER HOUSE FLOOR TILE				**Stop Positive (Not Analyzed)**
CR-202-Floor Tile *261204015-0203*	BOILER HOUSE FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-202-Mastic *261204015-0203A*	BOILER HOUSE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-203-Floor Tile *261204015-0204*	BOILER HOUSE FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-203-Mastic *261204015-0204A*	BOILER HOUSE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-204-Floor Tile *261204015-0205*	BOILER HOUSE FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-204-Mastic *261204015-0205A*	BOILER HOUSE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-205 *261204015-0206*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-206 *261204015-0207*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-207 *261204015-0208*	BOILER HOUSE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-208 *261204015-0209*	EXTERIOR BOILER HOUSE WINDOW CAULK	Tan Non-Fibrous Homogeneous		97% Non-fibrous (other)	**3% Chrysotile**

Analyst(s)

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
CR-209 *261204015-0210*	EXTERIOR BOILER HOUSE WINDOW CAULK					**Stop Positive (Not Analyzed)**
CR-210 *261204015-0211*	EXTERIOR BOILER HOUSE WINDOW CAULK					**Stop Positive (Not Analyzed)**
CR-211 *261204015-0212*	BOILER HOUSE VIBRATION DAMPENER CASKET	Various Fibrous Heterogeneous	90%	Glass	10% Non-fibrous (other)	**None Detected**
CR-212 *261204015-0213*	BOILER HOUSE VIBRATION DAMPENER CASKET	Yellow Fibrous Heterogeneous	95%	Glass	5% Non-fibrous (other)	**None Detected**
CR-213 *261204015-0214*	BOILER HOUSE VIBRATION DAMPENER CASKET	Various Fibrous Heterogeneous	95%	Glass	5% Non-fibrous (other)	**None Detected**
CR-214 *261204015-0215*	WWTP TANK INSULATION	White Non-Fibrous Heterogeneous	25%	Min. Wool	75% Non-fibrous (other)	**None Detected**
CR-215 *261204015-0216*	WWTP TANK INSULATION	White Non-Fibrous Heterogeneous	25%	Min. Wool	75% Non-fibrous (other)	**None Detected**

Analyst(s)

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-216 *261204015-0217*	WWTP TANK INSULATION	White Non-Fibrous Heterogeneous	25% Min. Wool	75% Non-fibrous (other)	**None Detected**
CR-217 *261204015-0218*	WWTP INTERIOR WINDOW CAULK	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-218 *261204015-0219*	WWTP INTERIOR WINDOW CAULK	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-219 *261204015-0220*	WWTP INTERIOR WINDOW CAULK	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-220 *261204015-0221*	LOCOMOTIVE HOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Homogeneous		97% Non-fibrous (other)	**3% Chrysotile**
CR-221 *261204015-0222*	LOCOMOTIVE HOUSE EXTERIOR WINDOW CAULK				**Stop Positive (Not Analyzed)**
CR-222 *261204015-0223*	LOCOMOTIVE HOUSE EXTERIOR WINDOW CAULK				**Stop Positive (Not Analyzed)**

Analyst(s)

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			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-223 *261204015-0224*	COAL PLANT OFFICE CEILING TILE	White Fibrous Heterogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-224 *261204015-0225*	COAL PLANT OFFICE CEILING TILE	White Fibrous Heterogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-225 *261204015-0226*	COAL PLANT OFFICE CEILING TILE	White Fibrous Heterogeneous	50% Cellulose 30% Min. Wool	20% Non-fibrous (other)	**None Detected**
CR-226-Floor Tile *261204015-0227*	GUARD SHACK FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-226-Mastic *261204015-0227A*	GUARD SHACK FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-227-Floor Tile *261204015-0228*	GUARD SHACK FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-227-Mastic *261204015-0228A*	GUARD SHACK FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
CR-228-Floor Tile *261204015-0229*	GUARD SHACK FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CR-228-Mastic *261204015-0229A*	GUARD SHACK FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)

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Received: 06/29/12 9:34 AM
Analysis Date: 7/6/2012
Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
CR-029 *261204015-0236*	FL TILE	Green Non-Fibrous Homogeneous	100	None	No Asbestos Detected
CR-059 *261204015-0237*	FL TILE	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
CR-110 *261204015-0238*	FL TILE	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
CR-190 *261204015-0239*	FL TILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
CR-202 *261204015-0240*	FL TILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
CR-226 *261204015-0241*	FL TILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected

Analyst(s)

Dahlia Zyhowski (6)

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Samples analyzed by EMSL Analytical, Inc. Chicago, IL

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Collected:	

Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
CR-006 *261204015-0230*	SWITCHHOUSE PLASTER	Gray Non-Fibrous Heterogeneous		98.25% Non-fibrous (other)	**1.75% Chrysotile**
CR-007 *261204015-0231*	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous		96.00% Non-fibrous (other)	**4.00% Chrysotile**
		Sample is not plaster; sample is mortar material.			
CR-105 *261204015-0232*	SWITCHHOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Homogeneous		99.00% Non-fibrous (other)	**1.00% Chrysotile**
CR-177 *261204015-0233*	BOILER ROOM WINDOW GLAZING INTERIOR	Gray Non-Fibrous Homogeneous		98.50% Non-fibrous (other)	**1.50% Chrysotile**
CR208 *261204015-0234*	EXTERIOR BOILER HOUSE WINDOW CAULK	Gray Non-Fibrous Homogeneous		98.00% Non-fibrous (other)	**2.00% Chrysotile**
CR-220 *261204015-0235*	LOCOMOTIVE HOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Homogeneous		96.75% Non-fibrous (other)	**3.25% Chrysotile**

Analyst(s)

Dahlia Zyhowski (6)

James Hahn, Laboratory Manager
or other approved signatory

Initial report from 07/06/2012 10:07:31

Appendix D
Licensure and Certification

Illinois Department of PUBLIC HEALTH

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER	ISSUED	EXPIRES
100 - 01759	4/10/2012	05/15/2013

GREG A MERRITT
158 TOULON DRIVE
BUFFALO GROVE, IL 60089

Environmental Health

ENDORSEMENTS	TC EXPIRES
INSPECTOR	2/1/2013
MANAGEMENT PLANNER	2/1/2013
PROJECT MANAGER	2/8/2013
AIR SAMPLING PROFESSIONAL	

Alteration of this license shall result in legal action
This license issued under authority of the State of Illinois Department of Public Health
This license is valid only when accompanied by a valid training course certificate.

Appendix E
Aires Report

ASBESTOS RISK ASSESSMENT

FOR

MIDWEST GENERATION
CRAWFORD STATION

CHICAGO, ILLINOIS

MARCH 9 THROUGH 15, 2011

PROJECT NUMBER: 11-25185

AIRES
1550 Hubbard Ave., Batavia, IL 60510, 630-879-3006
P.O. Box 1351, Peoria, IL 61654, 309-838-2962
91 Queens Road, Fort Pierce, FL 34949, 772-595-6518
5030 N. May Avenue #161, Oklahoma City, OK 73112, 405-848-5300

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Corporate Office and Laboratories
1550 HUBBARD AVE.
BATAVIA, ILLINOIS 60510
PHONE: 630.879.3006
FAX: 630.879.3014
WWW.AIRESCONSULTING.COM

April 21, 2011

Mr. Gary Kehoe, CIH
Senior Industrial Hygiene Specialist
Midwest Generation EME, LLC
235 Remington Blvd.
Suite A
Bolingbrook, IL 60440

e-mail: gkehoe@mwgen.com

Dear Mr. Kehoe:

Enclosed is a REVISED copy of our report covering the Asbestos Risk Assessment that was conducted on March 9 through 15, 2011, at your Crawford Station located in Chicago, Illinois.

Aires retains electronic files of all reports, correspondence, and data. We do not retain hand written field notes indefinitely. The file which contains the hand written field notes will be destroyed after **June 30, 2013**. If you would like to retain the field file after this date, please contact Aires at 630/879-3006, or E-mail to feedback@airesconsulting.com.

If you have any questions, please call me.

Sincerely,

Joseph F. Murphy

Joseph F. Murphy, C.H.M.M.
Supervisor – Field Operations and Remediation Services

JFM:rm
Enclosure

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Appendix II: Bulk Asbestos Sample Results
Appendix III: Drawings of Assessment Areas
Appendix IV: Photographs of Material Assessment Area

INTRODUCTION

Aires Consulting Group conducted an asbestos risk assessment at the Crawford EME, LLC. The assessment was conducted in the areas around the retired unit. The objectives of the survey were as follows:

- Evaluate asbestos content and condition in all areas.
- Conduct an assessment of factors which influence asbestos exposure to MWG personnel and contractor employees.

The assessment was conducted on March 9 through 15, 2011 by Joseph F. Murphy, C.H.M.M. and Jeffrey M. Olson of Aires Consulting Group, Inc. Mr. Murphy is an Illinois licensed asbestos inspector. Mr. Geoffrey J. Bacci, M.S., C.I.H. developed the assessment methodology and assisted in the development of this report.

METHODOLOGY

As part of the assessment, bulk samples were collected during the survey. All of the bulk samples were analyzed by polarized light/dispersion staining microscopy by Aires Laboratory. Aires Lab' is accredited by the National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber identification. Bulk samples were collected by taking a sample of all layers. In accordance with NVLAP accreditation requirements, all layers were analyzed for asbestos content.

Air flow measurements were collected with a Kurz Instruments Series 490 Mini Anemometer.

The assessment methodology was developed specifically for this site. The methodology considers two broad categories; material and exposure assessment. These factors were used to generate an overall **"risk factor"** for each **"exposure assessment area".** A spreadsheet of the risk factors for each exposure assessment area can be found in Appendix I.

Material Assessment Factors

Material assessment considers all factors related to the suspect asbestos containing material (SACM). These factors include the following:

- ***Asbestos type:*** "Amphibole" asbestos types such as "Amosite" have the highest risk rating based on their structure and shape. Amphibole types were given a risk rating of "2". Other non-amphibole "serpentine" types such as "Chrysotile" were given a risk rating of "1".

- **Asbestos Percent:** Higher asbestos content results in higher risk ratings. Asbestos < 1% and including trace findings generate a zero hazard ranking. The following risk factor assignments were used based on the percentage of asbestos present:

  - *<1% = 0*
  - *1 – 5% = 1*
  - *5 – 20% = 2*
  - *>20% = 3.*

- **Material Condition:** Material condition rankings range from "Good" to "Significantly Damaged (SD)". 'Good' condition refers to homogenous materials which have no visible damage or deterioration or only very little localized damage/deterioration. "Damaged" condition refers to materials that have 10% or less distributed damage/deterioration or 25% or less localized damage/deterioration. "Significantly Damaged" condition refers to materials that have greater than 10% distributed damage/deterioration or greater than 25% localized damage/deterioration. Risk ratings increase with the amount of damage. The following risk factors were assigned based on material condition:

  - *Good = 1*
  - *Damaged = 2*
  - *Significantly Damaged = 3.*

- **Air Diffusion:** Air flow across SACM generates an increased risk of fiber disruption. Risk factors were determined by measuring air flow. Air flow levels > 100 feet per minute (fpm) are the highest hazard risk. The following risk factor assignments were used based on the airflow speed data collected in the various exposure assessment areas:

  - *No (Negative) air flow = 1*
  - *Greater than 50 fpm = 2*
  - *Greater than 100 fpm = 3.*

- **Physical Disruption:** Physical disruption is determined by adjacent activities that have the potential to disrupt SACM. Physical disruption could include activities such demolition activities by contractors in adjacent the exposure area or adjacent areas (significant risk) or things such as vibrations from existing plant operating equipment or other physical energy sources (slight risk). The following risk factors were assigned based on Aires observations for potential physical disruption:

  - *No Potential = 1*
  - *Slight Risk = 2*
  - *Significant Risk = 3.*

- **Friability:** A "friable" material is crushable with hand pressure. It represents the single biggest factor related to hazard risk of asbestos containing material. Thermal system (TSI) pipe or duct insulation are good examples of friable materials. "Non friable" materials are building materials such floor tile and "transite" cement board. Non-friable materials are assigned a 50% risk to friable materials. The following risk factors were used for the friability:

  - *Friable = 1*
  - *Non-Friable = 2.*

Overall material assessment factors are calculated by summing all categories above except friability. The sum of all factors is multiplied by 1 for friable materials and 0.5 for non-friable materials.

Exposure Assessment Factors

There are two (2) exposure assessment factors considered.

"Fiber Migration" is determined by identifying areas where airflow is occurring from areas with damaged and significantly damaged asbestos containing material. The following fiber migration risk factors were utilized for the fiber migration component:

- *No Migration = 1*
- *Air Flow from "Damaged" Area = 2*
- *Air flow from Significantly Damaged (SD) Area = 3*

"Exposure Duration" is the potential for occupant exposure. The following exposure duration risk factors were used:

- *No exposure = 1*
- *Transient = 2*
- *Occupied < 1 hour = 3*
- *Occupied > 1 hour = 4*

Exposure duration factors consider both current and planned activities. We consider exposure duration one of the most important risk factors.

To calculate over-all hazard rankings, material assessment risk factors are multiplied by exposure risk factors. Hazard rankings can vary from 0 (non asbestos) to 98. The following table represents an example comparison of hazard rankings by general broad classes of risk.

Risk Factor Example Table

Material Assessment	Description	Exposure Assessment	Description	Risk Factor
7	> 20% chrysotile, low risk	2	low risk	14
8	> 20% amphibole, low risk	2	low risk	16
7	> 20% chrysotile, low risk	7	high risk	49
8	> 20% amphibole, low risk	7	high risk	56
13	> 20% chrysotile, high risk	2	low risk	26
14	> 20% amphibole, high risk	2	low risk	28
13	> 20% chrysotile, high risk	7	high risk	91
14	> 20% amphibole, high risk	7	high risk	98

Like all assessment systems, interpretation is necessary to translate risk factors into potential required corrective actions or emergency environmental release responses. An overall risk factor of > 50 are likely to require corrective actions or abatement activities to reduce the risk. An overall risk factor of < 30 has a lower priority for corrective actions. Risk factor rankings between 30 and 50 need to be more carefully reviewed to determine if corrective actions or responses are necessary.

RESULTS AND RECOMENDATIONS

The results of risk factor assessments are included in Appendix I. Analytical bulk sample results are included in Appendix II. Drawings of assessment areas are included in Appendix III as Figures 1, 2, and 3 for each level assessed respectively. Drawings include bulk sample locations, air flow information and picture identification. Appendix IV includes photographs of material assessment areas. The unique numbers identifying each bulk sample and each photograph in the Appendices can be cross-referenced to the approximate location of that material sample/photo on the drawings.

Air flow readings are included on the assessment sheets. Air flow can be highly variable. We expect seasonal changes in both direction and intensity. Air flow variability was noted during our survey as doors were opened and closed.

There were 27 assessment areas on the three levels survey. Overall risk factors varied between 0 (< 1% asbestos) and 84. From a priority standpoint, risk factor rankings of 60 or above have a significant combination of material condition and exposures risks. **These areas would be a priority for corrective action.**

On the G-10 Level, there were 14 assessment areas. Four (4) of the areas received a risk factor ranking of 60 or greater. They are as follows:

- ***Operations /Maintenance Office and Trailer Area:*** The area above this office has significantly damaged material. There are contractors working above the office. We are also concerned about potential fiber migration pathways to the office area below. The fresh air duct for the office HVAC unit has a duct for outside fresh air. The HVAC unit has a filter on the side and it appears that it may draw air from the general facility. We recommend that this be reviewed to ensure all air pathways from the top of the office are eliminated. **Overall Risk Factor = 60.**

- ***Incoming Water Pump Room/Filtration Room:*** The area has some occupant exposure and material is damaged. Asbestos content of damaged material is high. There are high air flow rates in this area. **Overall Risk Factor = 66.**

- ***Oil Storage Pump Room:*** This space has a high exposure rating since it is occupied by contractors. It may also be scheduled for demolition in the future. Material is significantly damaged. **Overall Risk Factor = 84.**

- ***Egress Pathway Adjacent to SNCR:*** Material is significantly damaged. There is high exposure duration. There is a potential for fiber migration from significantly damaged areas. **Overall Risk Factor = 84.**

On the 21 Level, there were seven (7) assessment areas. Three (3) of the areas received a risk factor ranking of 60 or greater. They are as follows:

- ***Level 21 East – South Area (column L20):*** Material is significantly damaged. Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. **Overall Risk Factor = 72.**

- **Level 21 East – Center Area (Column Q20):** Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. **Overall Risk Factor = 66.**

- ***Level 21 East – North Area (column T20):*** Exposed material is significantly damaged. There is the potential for fiber migration from air flow from significantly damaged areas. Exposure duration is transient. Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. **Overall Risk Factor = 60.**

On the 41 Level, there were six (6) assessment areas. All but one of the areas had a risk factor ranking of 60 or greater. They are as follows:

- ***Level 41 – Southwest (column L17):*** Material is significantly damaged. There are high flow rates and transient exposure. **Hazard Ranking 60.**

- ***Level 41 – North Area (column U-19):*** Material is significantly damaged. There are asbestos-contaminated debris piles in the area. Exposure is transient. **Overall Risk Factor = 60.**

- ***Level 41 – Center Area (column P19):*** Material is significantly damaged. There are high air flow rates. Exposure is transient. **Overall Risk Factor = 65.**

- ***Level 41 – South Area (Column L-19):*** Material is significantly damaged. There is the potential for fiber migration and exposure from due to airflow from significantly damaged areas. Exposure is transient. **Overall Risk Factor = 65.**

- ***GC/Abatement Storage Area:*** Material is significantly damaged in adjacent areas. Asbestos was present in dust and debris in and around contractor storage areas. There is exposure duration > 1 hour. **Overall Risk Factor = 60.**

The material condition and exposure potential gives an accurate risk factor for potential asbestos exposure. We do not recommend air sampling as an assessment tool in most areas since it delivers a onetime (snap shot) result that does not reflect the dynamic risk factors in the area. In addition, there are significant issues with interpreting such air sampling results.

One possible exception is the operations/maintenance office area(s) on G-10 which are directly below areas of damaged ACM. Air samples would yield good data as an indicator of whether or not fiber migration and occupant exposure is possible. If air sampling is conducted, Aires would recommend analysis sampling and analysis protocols by Transmission Electron Microscopy (TEM), since non asbestos fibers would be expected. TEM analysis can accurately distinguish between asbestos and non-asbestos fibers. The other widely recognized air sampling/analysis method, phase contrast microscopy (PCM), cannot distinguish between asbestos and non-asbestos fibers.

PROFESSIONAL CERTIFICATION

Aires Consulting Group, Inc. conducted this study in the interest of **Midwest Generation** to assist in preventing employee illness and in meeting legal obligations. In this respect, we hope the results of this study are useful. This study was not intended to include every health hazard or exposure that may be present in the facility; only those items specifically addressed in the report were evaluated. Results are based on conditions observed during our study. Substantial changes in occupancy levels, ventilation system operation, or facility usage can alter the outcome of an environmental study. If you have any questions concerning this study please let us know.

Aires retains electronic files of all reports, correspondence, and data. We do **not** retain hand written field notes **indefinitely**. The file that contains the hand written field notes will **not** be retained after **June 30, 2013**. If you would like to retain the field file after this date, please let us know and we will forward the file to you.

Respectfully submitted,

AIRES CONSULTING GROUP, INC.

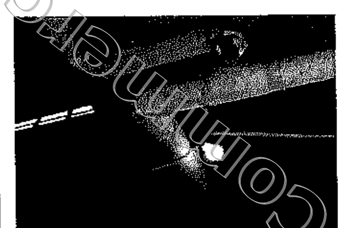
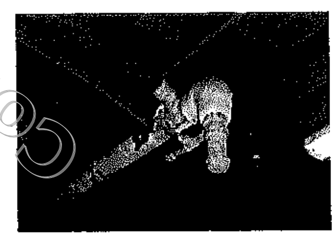
Jeffrey M. Olson
Environmental Health Consultant

Joseph F. Murphy, C.H.M.M.
Supervisor – Field Operations and Remediation Services

Geoffrey J. Bacci, M.S., C.I.H.
Director - Operations

APPENDIX I

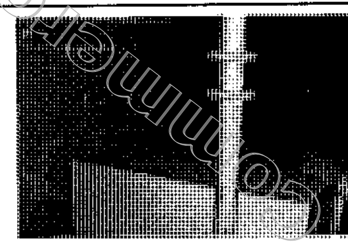
MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Storage Area 021 to W21 022 to W22	G10	Q21-R21	P	MC-1 and MC-2	1	3	2	3	1	2	South	150	N/A	3	2	55	 	
Incoming Water Pump Room/ Filtration Room K21 to N21 K22 to N22	G10	K21 to N21	P	MC-3	1	3	2	3	1	2	South	500	N/A	3	3	66		

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

AIRES

	Material Assessment Factors									Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Level G10 Egress Pathway Adjacent SNCR Construction Area Entrance/Contractor Welding Area	G10	N19	M	MC-87	1	3	3	2	1	3	South	50	N/A	3	4	84		
Level G10 T17 to W17 T18 to W18 Corridor Adjacent Construction Trailer	G10	V17	M	MC-88	1	1	3	3	1	2	South	2500	N/A	3	2	50		

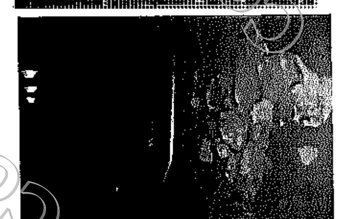
*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1. Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 9: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Corridor J15 to J22	G10	J21 to K17	P	MC-4 and MC-22	1	3	1	3	1	2	South	80-100	Up	3	2	35	 	

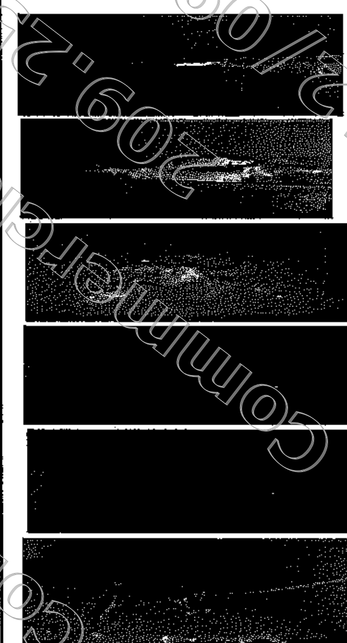
*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Electrical Room	G10	K19	M	MC-5 and MC-6	0	0	2	3	0.5	2	West	80	N/A	2	2	0	  	Possible LBP on wall plaster

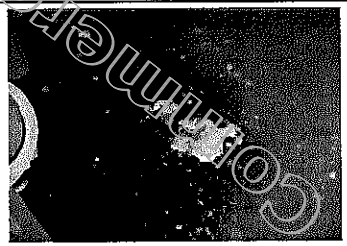
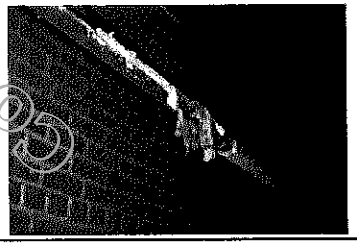
*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Exposure Areas	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors			Picture	Comments
	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1. Negative Air Flow, 2: ≤50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: ≤1 hr occupied, 4: >1 hr occupied	Combined Risk Factor		
Operations/Maintenance Office and Trailer Area **O17 to W17** **O18 to W18**	G10		PT	MC-7, MC-8, MC-9, MC-10, MC-11 and MC-12	2	1	3	2	1	2	*	*	Up	3	3	60		Contractors working above office at south end of construction area. North Building Entrance 2500-3000 fpm North Office Entrance 50-100 fpm West Office Entrance <50 fpm South Office Entrance 30 fpm

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	**Floor**	**Column Reference**	**System** P: Pipe, T: Tank, B: Boiler, M: Misc.	**Sample ID Number(s)**	**Asbestos Type** 1: Chrysotile, 2: Amphibole	**Asbestos %** 1: 1-5%, 2: 5-10%, 3: >10%	**Material Condition** 1: Good, 2: Damaged, 3: Significantly Damaged	**Air Diffusion** 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	**Friability** 0.5: Non-Friable, 1: Friable	**Physical Disruption** 1: No potential, 2: Slight Risk, 3: Significant Risk	**Direction** N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	**Air Flow fpm**	**Vertical Component** Up, Down, N/A	**Fiber Migration** 1: No Migration, 2: Airflow from damaged area, 3: Air flow from lab area	**Exposure Duration** 1: No Exposure, 2: Transient, 3: 1 hr occupied, 4: >1 hr occupied	**Combined Risk Factor**	**Picture**	**Comments**
Maintenance Shop K15 to K17 W15 to W17	G10		P	N/A	0	0	1	3	1	2	North	50-200	Up	2	4	0		
Former Ash Deposit Area K17 to N17 K18 to N18	G10	K17	PT	MC-14 and MC-15	1	3	3	1	1	3	West	50	Up	3	2	55	 	This area was also being used by construction crews.

*See Comments and/or Drawing
ND = Not Detected

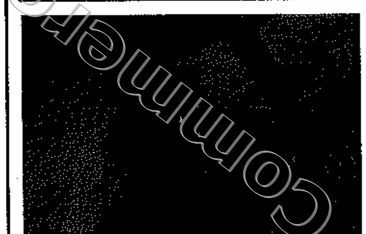
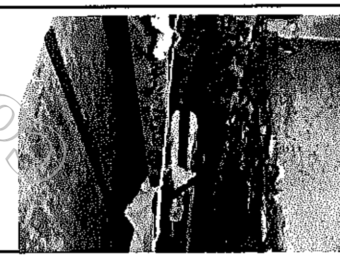
MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Former Ash Deposit Area K18 to N18 K19 to N19	G10	K18	P	MC-16 and MC-17	2	2	1	2	1	2	West	50-70	Up	2	4	54	 	This area was being used by construction contractor as Welding Fab Shop.
SNCR Construction Area O18 to O19 W18 to W19	G10										West		Up			0		This area was not surveyed for safety reasons. Previously decontaminated by Atlantic Plant Services.

Table column groups: Material Assessment Factors (Floor through Physical Disruption); Quantitative Air Flow (Direction, Air Flow fpm, Vertical Component); Exposure Assessment Factors (Fiber Migration, Exposure Duration).

*See Comments and/or Drawing
ND = Not Detected

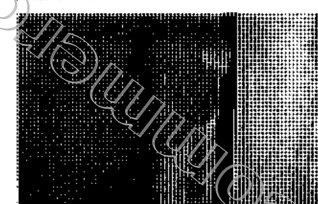
MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1, 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1. Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from 50 area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Former Ash Deposit Area SNR Construction Area	G10	Q20	PM	MC-18 and MC-19 and MC-20	1	0	3	2	1	3	West	50	Up	3	2	0	 	Trace amount of Chrysotile was found in Sample Number MC-20.
Oil Storage/Pump Room O18 to O19 P18 to P19	G10	P18	P	MC-21	2	2	3	2	1	3	South	50	Up	3	4	84		This space was occupied by mechanical contractor for new piping install and may be scheduled for demo by Graycor as part of SNCR project.

*See Comments and/or Drawing
ND = Not Detected

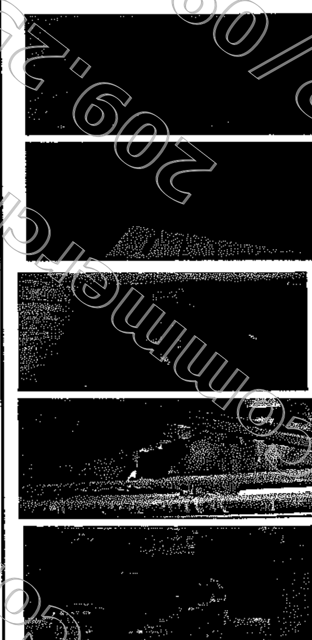
MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

AIRES

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Former Ash Pit Area K19 to K20 M19 to M20	G10		TPM	MC-23, MC-24, MC-25 and MC-26	1	1	3	1	0.5	2	West	25-50	Up	2	1	12	  	

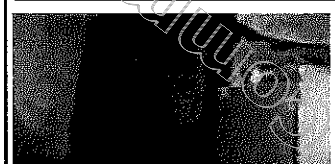
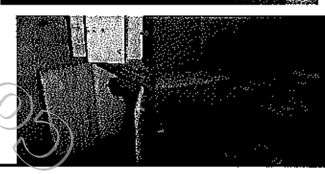
*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

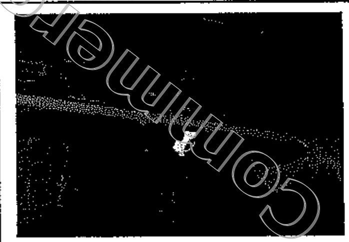
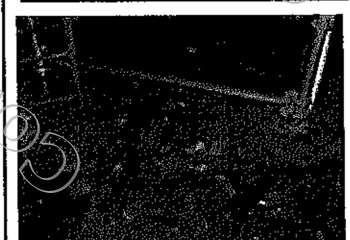
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Level 21 West - South Area **K14 to K17** **N14 to N17**	21	L14 to L17	TPM	MC-30, MC-31 MC-32, MC-33, MC-34, MC-35 and MC-36	1	3	3	3	1	2	West & South	200-300	Down	3	1	48		Trace amount of Chrysotile was found in Sample Number MC-36.

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
		Material Assessment Factors									Quantitative Air Flow			Exposure Assessment Factors				
Level 21 West - Center Area O14 to O17 R14 to R17	21	P14 to P17	TPM	MC-37, MC-38, MC-39, MC-40, MC-41 and MC-42	1	3	3	3	1	2	West & South	250-300	Down	3	1	48	   	Trace amount of Chrysotile was found in Sample Number MC-38.

*See Comments and/or Drawing
ND = Not Detected

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3:>20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1. Negative Air Flow, 2:>50 fpm, 3:>100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3:<1 hr occupied, 4:>1 hr occupied	Combined Risk Factor	Picture	Comments
Level 21 West - North Area S14 to 517 W14 to W17	21	T14 to T17	TPM	MC-43 and MC-44	1	2	3	3	1	2	South	50	Down	3	1	44		
Level 21 West - North Area S14 to 517 W14 to W17	21	T14 to T17	TPM	MC-45 and MC-46	1	3	3	3	1	2	South	50	Down	3	1	48	 	

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ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Exposure Areas	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors			Picture	Comments
	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor		
Level 21 East - South Area K20 to K22 N20 to N22	21	L20	TPM	MC-47, MC-48, MC-49, MC-50 and MC-51	1	3	3	3	1	2	South	50-400-700		3	3	72	  	

*See Comments and/or Drawing
ND = Not Detected

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Level 21 East - Center Area O20 to O22 R20 to R22	21	Q20	TPM	MC-52, MC-53, MC-54 and MC-55	2	2	3	2	1	2	South	500-100		3	3	66	  	

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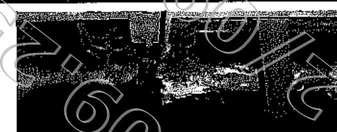
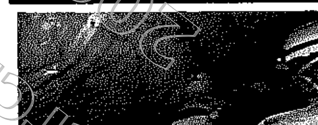
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors									Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1. 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1. Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from 3D area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Level 21 East - North Area S20 to S22 W20 to W22	21	T20	TPM	MC-56, MC-57, MC-58 and MC-59	2	3	3	2	1	2	South	500-100		2	3	60	  	

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Exposure Areas	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors			Picture	Comments
	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1. Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor		
Level 41 - Southwest Area **J16 to J18** **Q16 to Q18**	41	L17	PBM	MC-60, MC-61, MC-62, MC-63, MC-64, MC-65 and MC-66	1	3	3	3	1	2	West & South	300	Down	3	2	60	    	

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from 50 area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Level 41 - North Area S18 to W18 S22 to W22	41	U19	PBM	MC-67, MC-68, MC-69, MC-70 MC-71, MC-72 and MC-73	1	3	3	3	1	2	South	150	Down	3	2	60	    	

*See Comments and/or Drawing
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors									Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Level 41 - Center Area R18 to R22 O18 to O22	41	P19	PBM	MC-74 and MC-75	0	0	3	3	1	2	South	150	Down	3	2	0	 	

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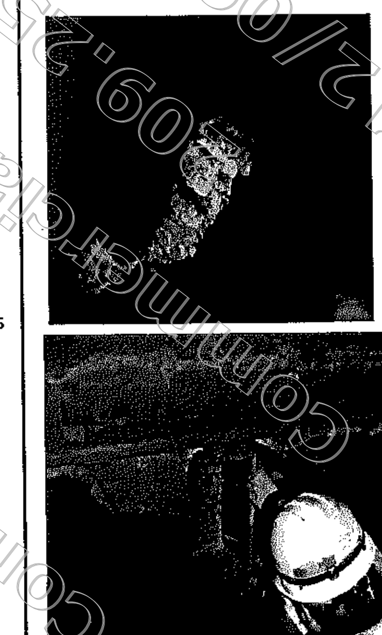
MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-Friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Level 41 - Center Area R18 to R22 O18 to O22	41	P19	PBM	MC-76, MC-77 MC-78 and MC-79	2	3	3	3	1	2	South	150	Down	3	2	65		

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ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System P: Pipe, T: Tank, B: Boiler, M: Misc.	Sample ID Number(s)	Asbestos Type 1: Chrysotile, 2: Amphibole	Asbestos % 1: 1-5%, 2: 5-20%, 3: >20%	Material Condition 1: Good, 2: Damaged, 3: Significantly Damaged	Air Diffusion 1: Negative Air Flow, 2: >50 fpm, 3: >100 fpm	Friability 0.5: Non-Friable, 1: Friable	Physical Disruption 1: No potential, 2: Slight Risk, 3: Significant Risk	Direction N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration 1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area	Exposure Duration 1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied	Combined Risk Factor	Picture	Comments
Level 41 - South Area N18 to N22 J18 to J22	41	L19	PBM	MC-80, MC-81, MC-82 and MC-83	2	3	3	3	1	2	South & West	50	Down	3	2	65	 	

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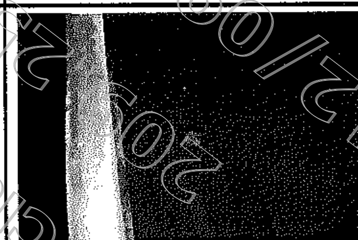
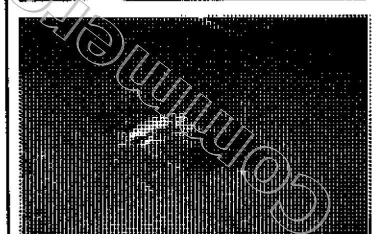
ND = Not Detected

MIDWEST GENERATION - CRAWFORD STATION
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

	Material Assessment Factors										Quantitative Air Flow			Exposure Assessment Factors				
Exposure Areas	Floor	Column Reference	System (P: Pipe, T: Tank, B: Boiler, M: Misc.)	Sample ID Number(s)	Asbestos Type (1: Chrysotile, 2: Amphibole)	Asbestos % (1: 1-5%, 2: 5-20%, 3: >20%)	Material Condition (1: Good, 2: Damaged, 3: Significantly Damaged)	Air Diffusion (1. Negative Air Flow, 2: >50 fpm, 3: >100 fpm)	Friability (0.5: Non-friable, 1: Friable)	Physical Disruption (1: No potential, 2: Slight Risk, 3: Significant Risk)	Direction (N: North, NE: Northeast, NW: Northwest, S: South, SE: Southeast, SW: Southwest, E: East, W: West)	Air Flow fpm	Vertical Component Up, Down, N/A	Fiber Migration (1: No Migration, 2: Air flow from damaged area, 3: Air flow from SD area)	Exposure Duration (1: No Exposure, 2: Transient, 3: <1 hr occupied, 4: >1 hr occupied)	Combined Risk Factor	Picture	Comments
Level 41 **P15 to W15** **P18 to W18** **GC/Abatement Contractor Storage Area**	41	P16	M	MC-82, MC-85 and MC-86	1	1	2	3	1	3	West	250-350	Down	2	4	60	 	

*See Comments and/or Drawing
ND = Not Detected

APPENDIX II

PLM Analytical Laboratory Report

Aires Consulting Group, Inc.

NVLAP #101014

Client: Midwest Generation

Address:

City/State: Crawford Station

Aires Project #: 11-25185

Contact: Joseph Murphy

Field Comments:

Requested TAT: Standard

Date Sampled: 3/9/2011

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous
11-558	MC-1	Corrugated Paper Thermal System Insulation; Storage Area- Column Q21	White fibrous papery layers	100	Chrysotile	50	Cellulosic	30	20
11-559	MC-2	Hard Pack Fitting TSI Storage Area- Column R21	White/ light brown friable fibrous pressed	100	Chrysotile	15	Cellulosic Fibrous glass	1 15	69
11-560	MC-3	Hard Pack Fitting TSI Pump Room Area L-21	White/ light brown friable fibrous pressed	92	Chrysotile	25	Cellulosic Fibrous glass	1 7	67
			White coated fibrous woven	8	ND	-	Cellulosic	70	30
11-561	MC-4	Woolfelt TSI Corridor J-20	Tan fibrous papery layers	100	Chrysotile	5	Cellulosic Synthetic	70 5	20
11-562	MC-5	Cementitous Wall Plaster Skim Coat Electrical Room K-19	White painted white hard compound	93	ND	-	Cellulosic Synthetic	trace trace	99+
			Tan rocky cementitous	7	ND	-	ND	-	100
11-563	MC-6	Cementitous Wall Plaster Skim Coat Electrical Room K-19	White painted white hard compound	90	ND	-	Cellulosic Synthetic	trace trace	99+
			Tan rocky cementitous	10	ND	-	Cellulosic Synthetic	trace trace	99+
11-564	0311QC-A	Duplicate analysis of 11-559	White/ light brown friable fibrous pressed	100	Chrysotile	15	Cellulosic Fibrous glass	1 15	69

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Lab Number	Sample ID	Field Information: Material	Field Information: Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous

Received by: HAF **Analyst:** HAF **Lab Reference:** 11-PLM-03 **QC Review:** [signature]

Date Received: 3/11/2011 **Analysis Date:** 3/15/2011 **Report Issue Date:** 3/16/2011 **QC Title:** Director - Laboratory

Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020 **Format:** Rev 10-19

COMMENTS: All samples received in acceptable condition unless otherwise noted.
Test results apply only to samples analyzed.
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.
ND = Not detected; limit of quantitation is 1%

PLM Analytical Laboratory Report

Aires Consulting Group, Inc.

NVLAP #101014

Client: Midwest Generation

City/State: Crawford Station

Aires Project #: 11-25185

Contact: Joe Murphy

Field Comments:

Requested TAT: Standard

Date Sampled: 3/10/2011

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	%	Non-asbestos Fibers: Type	%	% Non-fibrous
11-565	MC-7	Debris on Crane Rail. Above Office Column S-17.	Gray/ white/ brown fibrous friable particulate	100	Chrysotile	10	Cellulosic Fibrous glass Synthetic	2 5 5	78
11-566	MC-8	Debris On Crane Rail. Above Office Column R-17.	White friable fibrous	100	Chrysotile Crocidolite	10 10	ND	-	80
11-567	MC-9	Debris on top of office structure. Above Office Column Q-17.	Tan woven fibrous	7	ND	-	Cellulosic	90	10
			White friable fibrous	93	Chrysotile Crocidolite	10 10	ND	-	80
11-568	MC-10	Corrugated TSI. East Wall Above Office Q-18.	Brown & black papery fibrous layers	100	Chrysotile	5	Cellulosic	60	35
11-569	MC-11	Woolfelt TSI Corrugated Aircell. East Wall Above Office Q-18.	Tan fibrous papery layers	60	Chrysotile	15	Cellulosic	70	15
			Black fibrous papery layers	40	Chrysotile	7	Cellulosic	50	43
11-570	MC-12	Debris on Rail. South End above Office.	Brown/ white fibrous particulate	100	Amosite Chrysotile	1 5	Cellulosic Fibrous glass	2 5	87
11-571	MC-13	Debris on Air Duct. Above Office ST-18	Brown/ gray rocky particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass Synthetic	1 1 trace	97+
11-572	MC-14	Debris & Insulation and Ground. Bay M-N 17-18.	Light gray fibrous friable w/ black rocky	100	ND	-	Cellulosic Fibrous glass	trace 0.5	99+
11-573	MC-15	Mag Insulation TSI. Bay K-17, Fell off Pipe.	White friable fibrous	100	Chrysotile	45	ND	-	55

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Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	%	Non-asbestos Fibers: Type	%	% Non-fibrous
11-574	MC-16	Woolfelt TSI Corrugated Pipe Insulation. Bay L-M-18.	Coated tan fibrous woven	8	ND	-	Cellulosic	75	25
			Tan fibrous papery layers	92	Chrysotile	5	Cellulosic Synthetic	70 5	20
11-575	MC-17	Mag Insulation TSI. Bay L-M-18.	Off-white fibrous friable	100	Amosite Chrysotile Crocidolite	0.5 35 trace	Fibrous glass	2	62+
11-576	MC-18	Mag Insulation TSI. Bay Q-20.	Light blue-white fibrous friable	100	ND	-	Fibrous glass Synthetic	1 7	92
11-577	MC-19	Debris Pile Floor. Bay Q-20 Floor.	Tan rocky cementitous particulate	100	ND	-	Cellulosic Synthetic	trace trace	99+
11-578	MC-20	Sand/Dirt Debris Floor. Bay S-20 Floor.	Brown rocky particulate	100	Chrysotile	trace	Cellulosic	trace	99+
11-579	MC-21	TSI Damaged Insulation. Bay O-18	Off-white fibrous friable	100	Amosite Chrysotile	7 10	Fibrous glass	5	78
11-580	MC-22	TSI In Corridor. Corridor K-17.	Gray/ white fibrous friable	100	Chrysotile	50	Cellulosic	3	47
11-581	MC-23	TSI on Hopper Pipe. Ash Pit Room L-18.	Off-white/ rust-colored hard friable particulate	100	ND	-	ND	-	100
11-582	MC-24	TSI on Pipe. Ash Pit Room L-20.5.	Brown/ gray flaky fibrous papery layers	100	Chrysotile	15	Cellulosic Fibrous glass	1 2	82
11-583	MC-25	Debris on Ground. Ash Pit Room L-19.5.	Gray rocky cementitous	100	ND	-	ND	-	100
11-584	MC-26	Debris on Ground. Ash Pit Room L-19.	Brown flaky/ rocky/ sandy particulate	100	ND	-	Cellulosic	1	99

Lab Number	Sample ID	Field Information: Material	Field Information: Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous
11-585	0311QC-B	Duplicate analysis of 11-577		Light tan rocky cementitous particulate	100	ND	-	Cellulosic	0.5	99.5
11-586	0311QC-C	Duplicate analysis of 11-568		Dark tan & black fibrous layers	100	Chrysotile	3	Cellulosic	65	32

Received by: HAF
Date Received: 3/11/2011
Analyst: HAF
Analysis Date: 3/22/2011
Lab Reference: 11-PLM-03
Report Issue Date: 3/24/2011
QC Review: Charling
QC Title: Director - Laboratory
Format: Rev 10-19

Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020

COMMENTS: All samples received in acceptable condition unless otherwise noted.
Test results apply only to samples analyzed.
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.
ND = Not detected; limit of quantitation is 1%

PLM Analytical Laboratory Report

Aires Consulting Group, Inc.

NVLAP #101014

Client: Midwest Generation - Crawford

Aires Project #: 11-25185

Contact: Joe Murphy

Field Comments:

Requested TAT: Standard

City/State: Chicago, IL

Date Sampled: 3/11/2011

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos Type	Regulated Asbestos %	Non-asbestos Fibers Type	Non-asbestos Fibers %	% Non-fibrous
11-631	MC-30	Ground Debris. Level 21 - Column L-14.	Gray/ brown rocky miscellaneous particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass	5 trace	94+
11-632	MC-31	Pipe Hard Pack Fitting (HPF) TSI Material. Level 21 - Column K-15.	Off-white friable fibrous	100	Chrysotile	30	Fibrous glass	7	63
11-633	MC-32	Pipe HPF TSI Material. Level 21 - Column K-15.	Light tan fibrous friable pressed	100	Chrysotile	80	Synthetic	1	19
11-634	MC-33	Steam Valve HPF TSI. Level 21 - Column K-17.	Off-white friable fibrous	100	Chrysotile	60	ND	-	40
11-635	MC-34	Boiler Duct Insulation. Level 21 - Column M-17.	White friable fibrous	100	Chrysotile	50	ND	-	50
11-636	MC-35	Ground Debris. Level 21 - Column N-16 Near Wall Opening	Brown rocky particulate w/ light tan friable fibrous	100	Chrysotile	20	Cellulosic	5	75
11-637	MC-36	Ground Debris. Level 21 - Column N-14 Near Wall Opening.	Brown rocky fibrous particulate	100	Chrysotile	trace	Cellulosic Fibrous glass	25 1	73+
11-638	MC-37	Debris Swept Pile Near Wall Opening. Level 21 - Column P-14 Near Opening.	Dark brown fibrous particulate	100	ND	-	Cellulosic Synthetic	30 1	69
11-639	MC-38	Debris Swept Pile Near Wall Opening. Level 21 - Column R-14.	Gray/ brown fibrous rocky particulate	100	Chrysotile	trace	Cellulosic Fibrous glass Synthetic	8 trace trace	91+

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	%	Non-asbestos Fibers: Type	%	% Non-fibrous
11-640	MC-39	Debris Swept Pile In Main Aisleway. Level 21 - Column Q-15.	Brown fibrous rocky particulate	100	Chrysotile	3	Cellulosic Fibrous glass Synthetic	7 trace trace	89+
11-641	MC-40	Boiler System Duct Insulation. Level 21 - Column P-16.	Silver coated tan woven fibrous	40	ND	-	Cellulosic	75	25
			White friable fibrous	60	Chrysotile	65	ND	-	35
11-642	MC-41	Electrical Box Transite Enclosure. Level 21 - Column Q-16.	Gray fibrous hard non-friable	100	Chrysotile	30	ND	-	70
11-643	MC-42	Debris Pile. Level 21 - Column S-16, At East Wall Opening Near Office.	Tan/ gray fibrous rocky particulate	100	Chrysotile Crocidolite	8 1	Cellulosic	5	86
11-644	MC-43	Debris Swept. Level 21 - Column T-16 Opening Near Trailer.	Brown/ white fibrous particulate	100	Chrysotile	10	Cellulosic	8	82
11-645	MC-44	Woolfelt Pipe TSI. Level 21 - Column W-16.	Black and tan fibrous papery layers	100	ND	-	Cellulosic Synthetic	70 5	25
11-646	MC-45	Pipe Drain Line Hard Pack Fitting Thermal System Insulation. Level 21 - Column V-15.	Black coated tan fibrous woven	20	ND	-	Cellulosic	80	20
			Light tan friable fibrous	80	Chrysotile	75	ND	-	25
11-647	MC-46	Debris Swept Pile Around Scaffolding. Level 21 - Column T-14.	Brown fibrous particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass	55 trace	44+
11-648	0322QC-1	Duplicate analysis of 11-638	Brown fibrous particulate	100	ND	-	Cellulosic Fibrous glass Synthetic	25 trace trace	74+
11-649	0322QC-2	Duplicate analysis of 11-646	Black coated tan fibrous woven	15	ND	-	Cellulosic	75	25
			Light tan fibrous friable	85	Chrysotile	75	ND	-	25

Received by: HA **Analyst:** HAF **Lab Reference:** 11-PLM-03 **QC Review:** [illegible]
Date Received: 3/11/2011 **Analysis Date:** 3/23/2011 **Report Issue Date:** 3/24/2011 **QC Title:** Director - Laboratory
Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020 **Format:** Rev 10-19

COMMENTS: All samples received in acceptable condition unless otherwise noted.
Test results apply only to samples analyzed.
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.
ND = Not detected; limit of quantitation is 1%

PLM Analytical Laboratory Report

Aires Consulting Group, Inc.

NVLAP #101014

Client: Midwest Generation - Crawford

Address:

City/State: Chicago, IL

Aires Project #: 11-25185

Contact: Joe Murphy

Field Comments:

Requested TAT: Standard

Date Sampled: 3/14/2011

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos Type	%	Non-asbestos Fibers Type	%	% Non-fibrous
11-650	MC-47	Transite Electrical Cabinet. Level 21 - Bottom Of Stairs Near L-20.	Silver painted gray fibrous hard non-friable	100	Chrysotile	30	ND	-	70
11-651	MC-48	Pipe TSI. Level 21 - Near Column K-20.	White friable fluffy fibrous	100	Chrysotile	35	ND	-	65
11-652	MC-49	Boiler Duct TSI. Level 21 - Near Column K-20.	Light gray friable fibrous pressed	100	Chrysotile	50	ND	-	50
11-653	MC-50	Main Steam Pipe TSI. Level 21 - Near Column M-20.	Off-white friable fibrous	100	Chrysotile	50	ND	-	50
11-654	MC-51	Debris Adjacent South Stair. Level 21 - Near N-21 Mezzanine.	Dark gray fibrous particulate	100	Amosite Chrysotile	3 20	Cellulosic Fibrous glass	2 trace	74+
11-655	MC-52	Boiler Duct TSI. Level 21 - Near Column O-21.	White friable fibrous pressed	100	Chrysotile	30	ND	-	70
11-656	MC-53	Steam Pipe TSI. Level 21 - Near Column N-21.5.	Light gray/ tan fibrous friable	100	Amosite Chrysotile	5 10	Fibrous glass	15	70
11-657	MC-54	Debris Pile Walkway Along Handrail. Level 21 - Near Column O-21.5.	Gray fibrous friable particulate	100	Chrysotile	2	Cellulosic Fibrous glass	5 7	86
11-658	MC-55	Main Steam Valve TSI. Level 21 - Near Column R-20.	Light tan friable fibrous	100	Amosite Chrysotile	1 25	Fibrous glass	5	69

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous
11-659	MC-56	Debris Pile On Main Walkway Adjacent Handrail. Level 21 - Near Column S-21.	Gray fibrous friable particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass	7 trace	92+
11-660	MC-57	Main Steam Valve TSI. Level 21 - Column T-20.	Pink/ tan/ white friable fibrous	100	Amosite Chrysotile	10 5	Fibrous glass	3	82
11-661	MC-58	Boiler Duct TSI. Level 21 - Near Column V-21.	Tan fibrous woven	15	ND	-	Cellulosic	80	20
			White friable fibrous	85	Chrysotile	35	Cellulosic	1	64
11-662	MC-59	Debris Pile On Stairwell. Level 21 - Near Column T-21.	Dark brown/ black loose fibrous particulate	100	Chrysotile	10	Cellulosic Fibrous glass	5 5	80
11-663	MC-60	Steam Pipe TSI. Level 41-K-18.	Gray/ white fibrous friable	100	Chrysotile	50	ND	-	50
11-664	MC-61	Boiler Duct TSI. Level 41 - Near Column L-17.	Tan fibrous woven	7	ND	-	Cellulosic	80	20
			Off-white friable fibrous	93	Chrysotile	60	ND	-	40
11-665	MC-62	Boiler Heater Tube Inspection. Level 41 - Near Column M-17.5.	Rust colored fibrous friable	100	Amosite Chrysotile	12 5	Fibrous glass	20	63
11-666	MC-63	Boiler Door Cementicious Packing. Level 41 - Near Column N-17.	Light orange rocky cementitous	100	Chrysotile	trace*	ND	-	99+
11-667	MC-64	Floor Debris South Walkway. Level 41 - Near Column L-18.	Brown/ black loose particulate	100	Amosite Chrysotile	2 7	Cellulosic Fibrous glass	3 0.5	87.5
11-668	MC-65	Debris Pile Adjacent Center Walk. Level 41 - Near Column O-18.	Brown/ black particulate w/ white fibrous friable chunks	100	Chrysotile	25	Cellulosic Fibrous glass Synthetic	5 trace trace	69+
11-669	MC-66	Steam Pipe TSI. Level 41 - Near Column P-17.	Light gray/ tan fibrous friable	100	Chrysotile	35	ND	-	65
11-670	MC-67	Boiler Insulation. Level 41 - Near Column R-19.	Light gray fibrous friable	100	Chrysotile	50	ND	-	50
11-671	MC-68	Pipe TSI. Level 41 - Near Column S-20.	White fluffy friable fibrous	100	Chrysotile	35	ND	-	65

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous
11-672	MC-69	Debris Pile. Level 41 - Debris Pile Near S-21.	Dark brown/ black fibrous particulate	100	Chrysotile	10	Cellulosic Fibrous glass	25 15	50
11-673	MC-70	Boiler Pipe Insulation. Level 41 - Near Column U-19.	Light gray/ white fibrous friable	100	Amosite Chrysotile	7 3	Cellulosic Fibrous glass	1 15	74
11-674	MC-71	Debris Pile On Floor. Level 41 - Near Column V-18.	Brown/ black fibrous particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass Synthetic	15 trace trace	84+
11-675	MC-72	Boiler Insulation. Level 41 - Near Column V-21.	Gray/ white fibrous friable	100	Amosite Chrysotile	8 5	ND	-	87
11-676	MC-73	Boiler Duct Insulation. Level 41 - Near Column V-21.	Gray/ tan/ white friable fibrous	100	Chrysotile	35	Fibrous glass	trace	64+
11-677	MC-74	Debris Pile Adjacent Walkway. Level 41 - Near Column O-18.	Dark brown fibrous debris/ particulate	100	ND	-	Cellulosic Fibrous glass Other fibrous	20 trace 4	85+
11-678	MC-75	Mineral Wool Boiler Insulation. Level 41 - Near Column P-18.	Off-white fluffy fibrous	100	ND	-	Fibrous glass	90	10
11-679	MC-76	Boiler Pipe Insulation. Level 41 - Near Column O-19.	Light tan friable fibrous	100	Chrysotile	25	Fibrous glass	30	45
11-680	MC-77	Ground Debris. Level 41 - Near Column N-21.	Gray/ black fibrous particulate	100	Amosite Chrysotile	7 0.5	Cellulosic Fibrous glass	1 10	81.5
11-681	MC-78	Boiler Hatch Gasket Material. Level 41 - Near Column N-21.	Tan fibrous clumps	100	Chrysotile	85	ND	-	15
11-682	MC-79	Boiler Duct Insulation. Level 41 - Near Column O-21.	Black coated tan/ white friable fibrous	100	Chrysotile	30	Fibrous glass	35	35
11-683	MC-80	Boiler Pipe Insulation. Level 41 - Near Column J-19.	White fluffy friable fibrous	100	Amosite	15	ND	-	85
11-684	MC-81	Thermal System Insulation. Level 41 - Near Column K-21.	Gray/ white fibrous friable	100	Amosite Chrysotile	0.5 50	Fibrous glass	1	48.5

Lab Number	Sample ID	Field Information: Material / Location	Sample Layer(s): Description of layer	% of sample	Regulated Asbestos: Type	Regulated Asbestos: %	Non-asbestos Fibers: Type	Non-asbestos Fibers: %	% Non-fibrous
11-685	MC-82	Damaged TSI. Level 41 - Near Column J-22.	Black & white fluffy fibrous friable	100	Amosite Crocidolite	15 5	ND	-	80
11-686	MC-83	Floor Debris South Walkway. Level 41 - Near Exit Tunnel Column J-16.5.	Black/ brown fibrous particulate	100	ND	-	Cellulosic Fibrous glass Synthetic	50 1 trace	48+
11-687	0322QC-A	Duplicate analysis of 11-670	Gray/ white fibrous friable	100	Chrysotile	50	ND	-	50
11-688	0322QC-B	Duplicate analysis of 11-660	Gray/ tan/ white friable fibrous	100	Amosite Chrysotile	12 2	Fibrous glass	1	85
11-689	0322QC-C	Duplicate analysis of 11-657	Gray fibrous particulate	100	Chrysotile	3	Cellulosic Fibrous glass	10 5	82
11-690	0322QC-D	Duplicate analysis of 11-682	Black coated tan/ white friable fibrous	100	Chrysotile	30	Fibrous glass	15	55

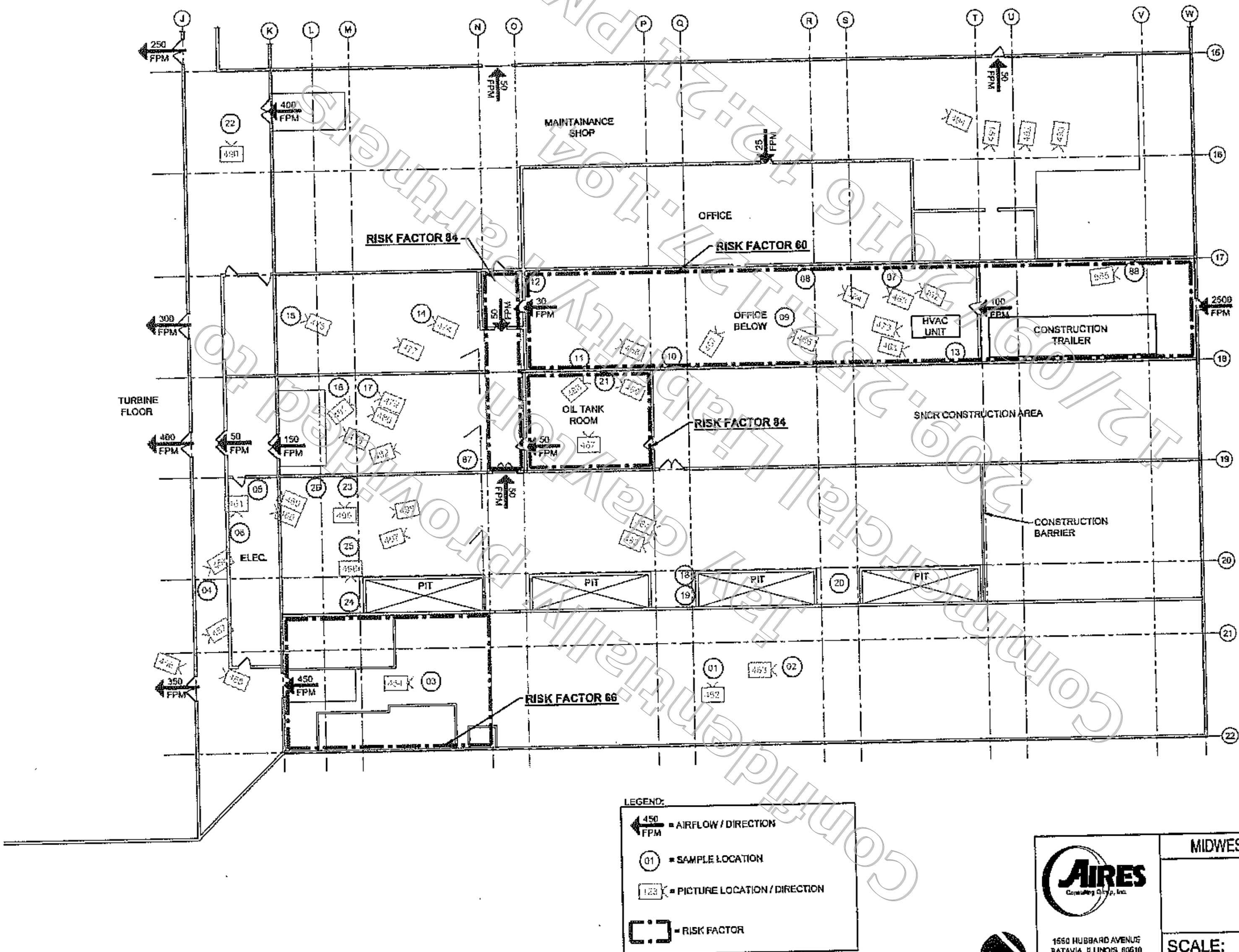
Received by: HAF **Analyst:** HAF **Lab Reference:** 11-PLM-03 **QC Review:** Charles (signature)

Date Received: 3/15/2011 **Analysis Date:** 3/24/2011 **Report Issue Date:** 3/24/2011 **QC Title:** Director - Laboratory

Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020 Format: Rev 10-19

COMMENTS: All samples received in acceptable condition unless otherwise noted.
Test results apply only to samples analyzed.
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.
ND = Not detected; limit of quantitation is 1%
*11-666: Chrysotile present only on outer portion of sample.

APPENDIX III



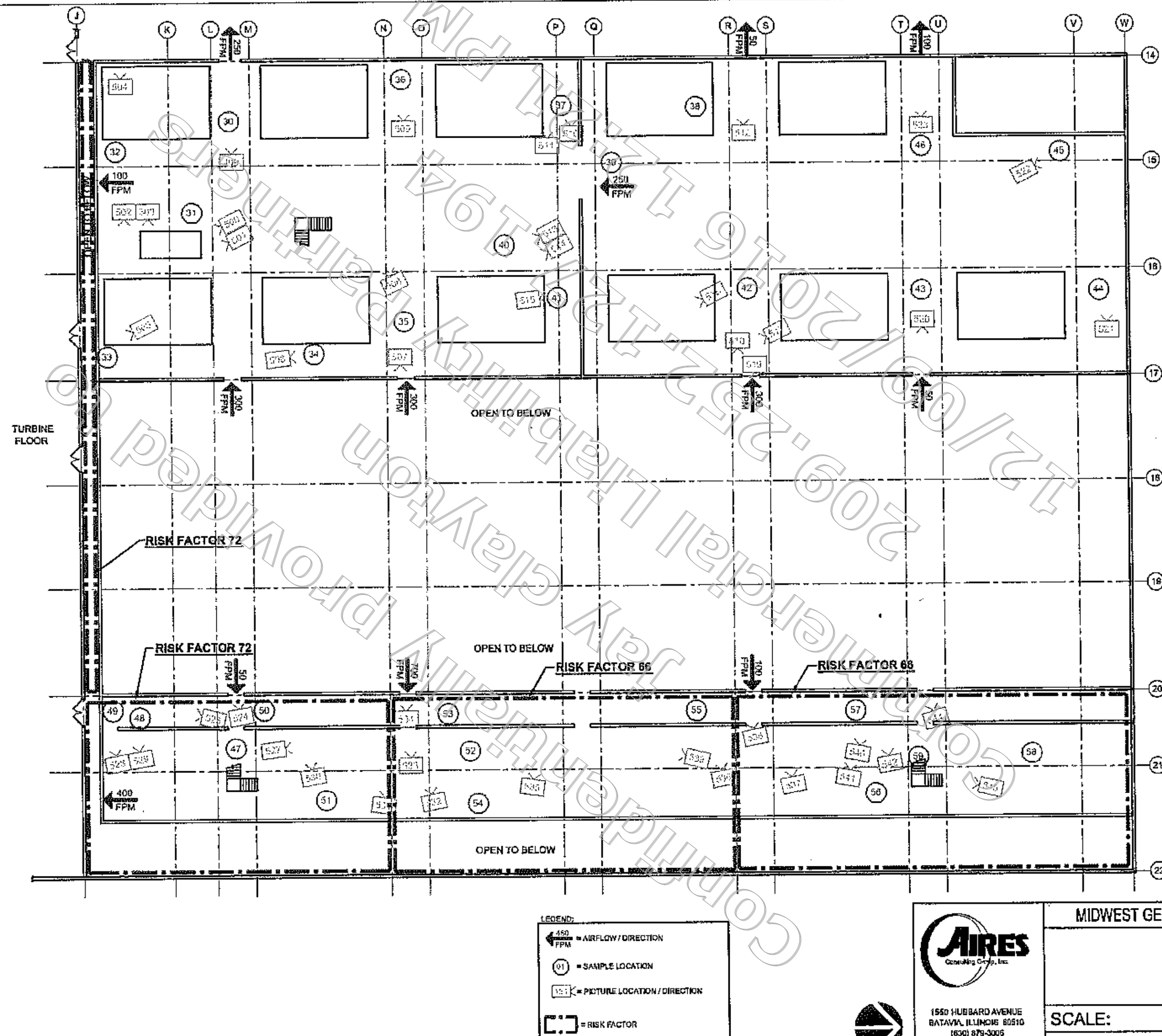
AIRES Consulting Group, Inc.
1550 HUBBARD AVENUE
BATAVIA, ILLINOIS 60510
(630) 879-3006
(630) 879-3014 (FAX)

MIDWEST GENERATION (CRAWFORD STATION)

FIGURE-1

LEVEL G-10

SCALE:	N.T.S.	DRAWN BY:	JMO
PROJECT:	11-25185	DATE:	04.21.11



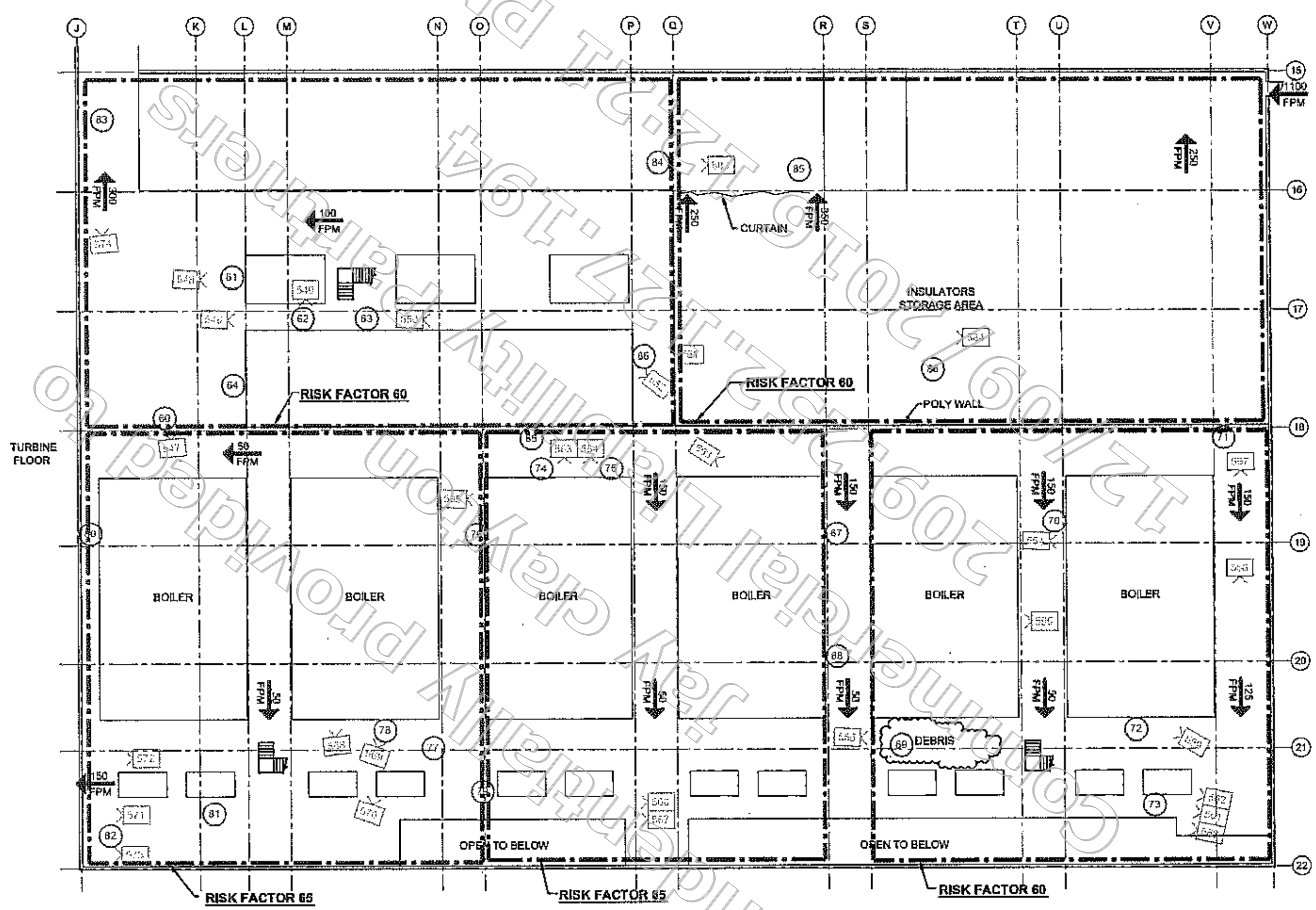
AIRES Consulting Group, Inc.
1550 HUBBARD AVENUE
BATAVIA, ILLINOIS 60510
(630) 879-3006
(630) 879-3014 (FAX)

MIDWEST GENERATION (CRAWFORD STATION)

FIGURE-2

LEVEL 21

SCALE: N.T.S.	DRAWN BY: JMO
PROJECT: 11-25185	DATE: 04.21.11



AIRES Consulting Group, Inc.

1550 HUBBARD AVENUE
BATAVIA, ILLINOIS 60510
(630) 879-3006
(630) 879-3014 (FAX)

MIDWEST GENERATION (CRAWFORD STATION)

FIGURE-3

LEVEL 41

SCALE:	N.T.S.	DRAWN BY:	JMO
PROJECT:	11-25185	DATE:	04.21.11

APPENDIX IV

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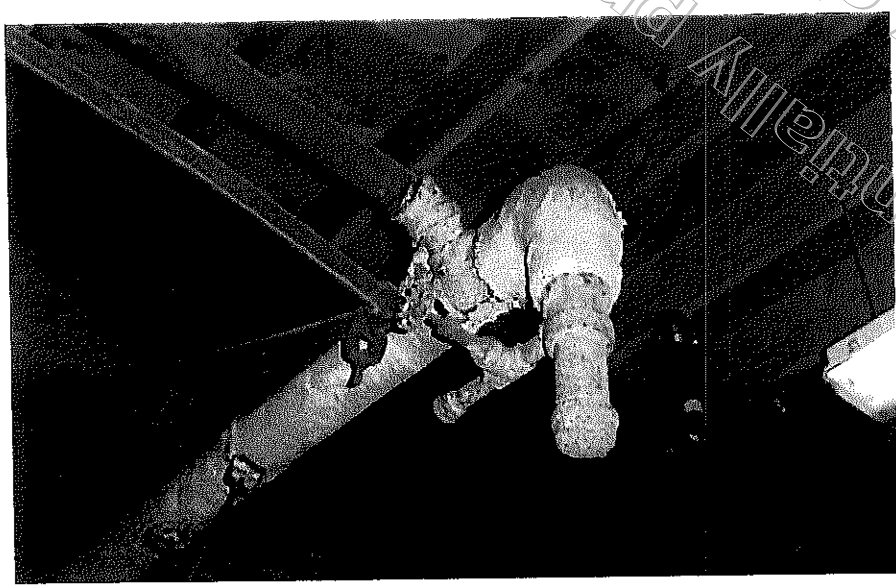

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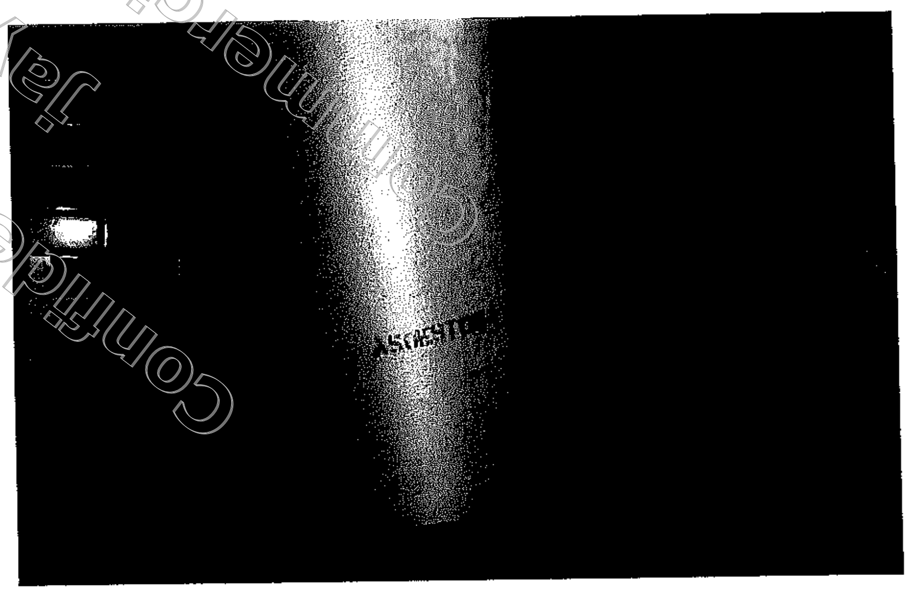

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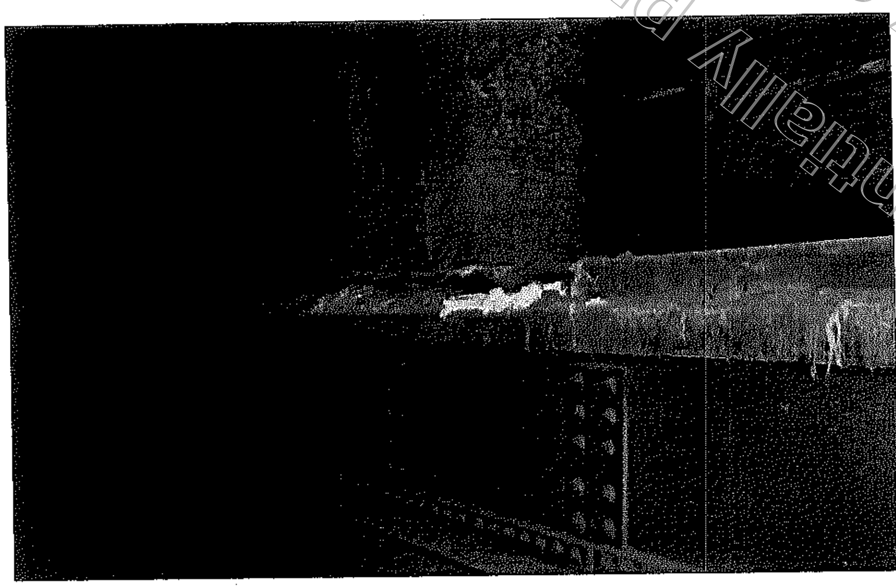

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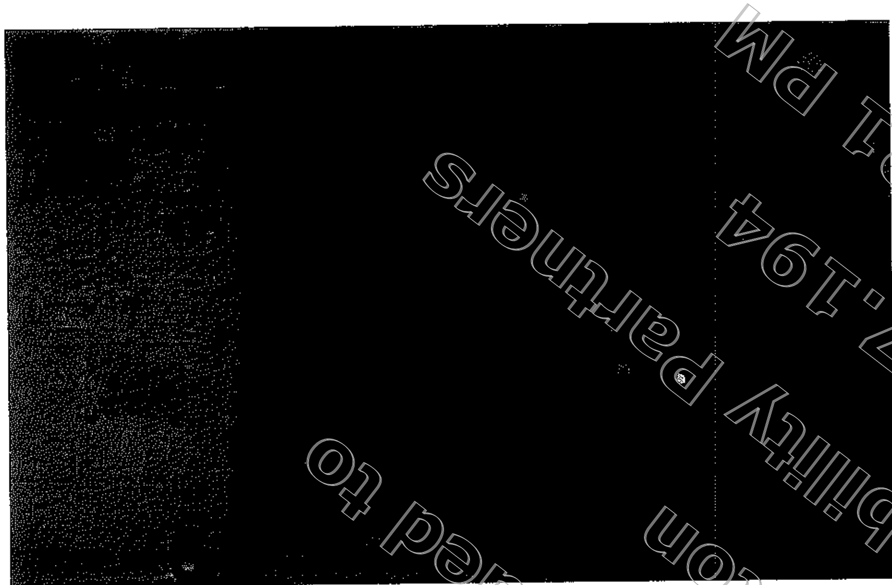

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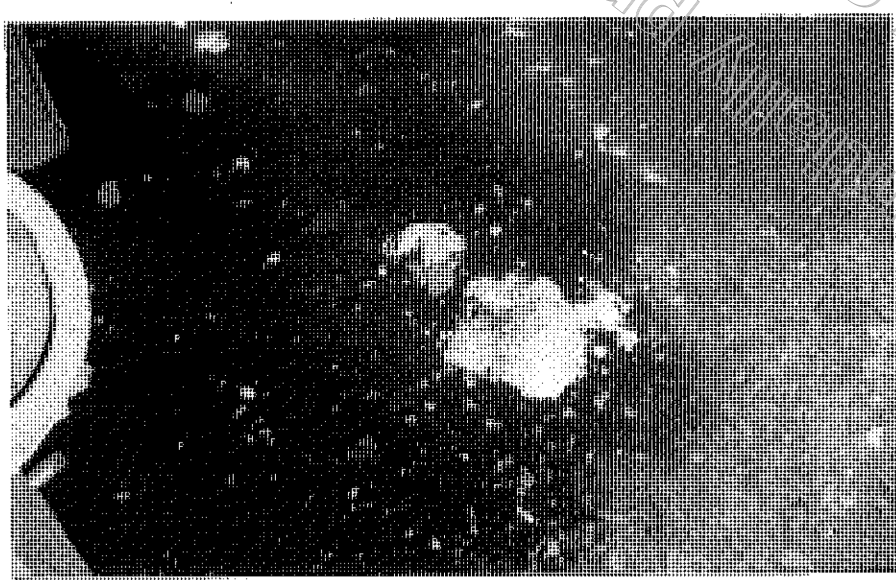

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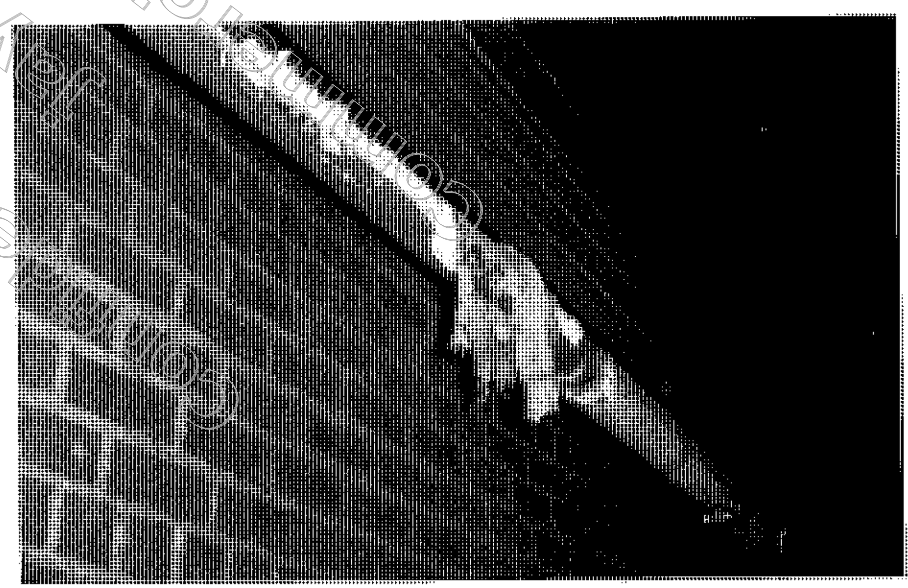

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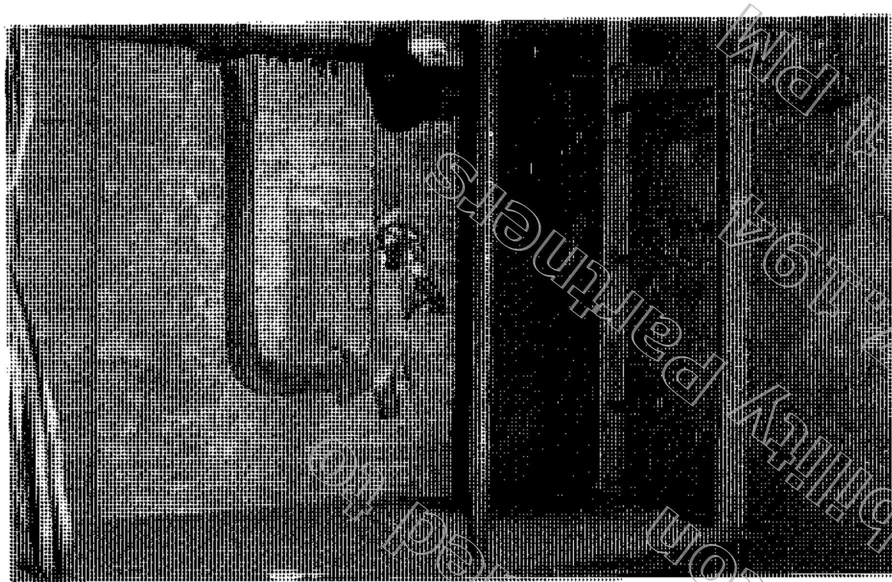

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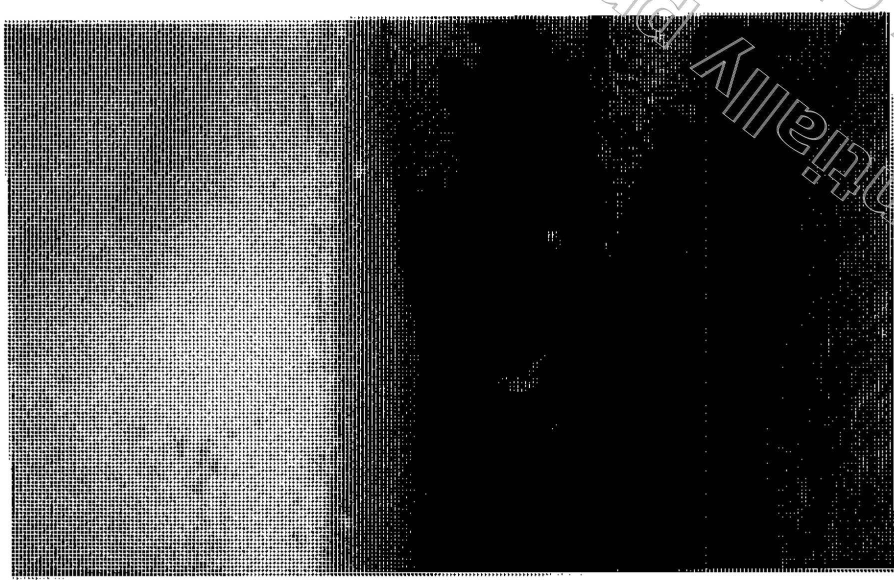

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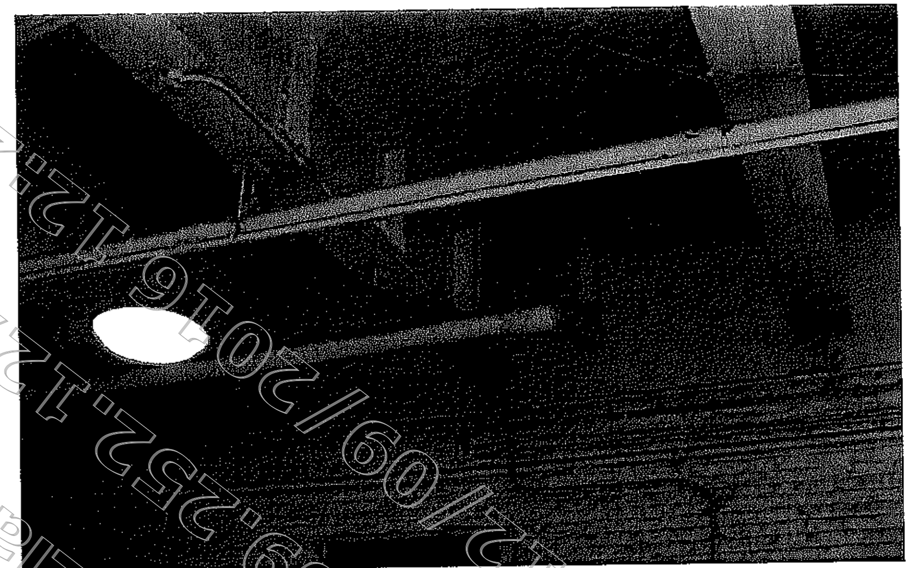

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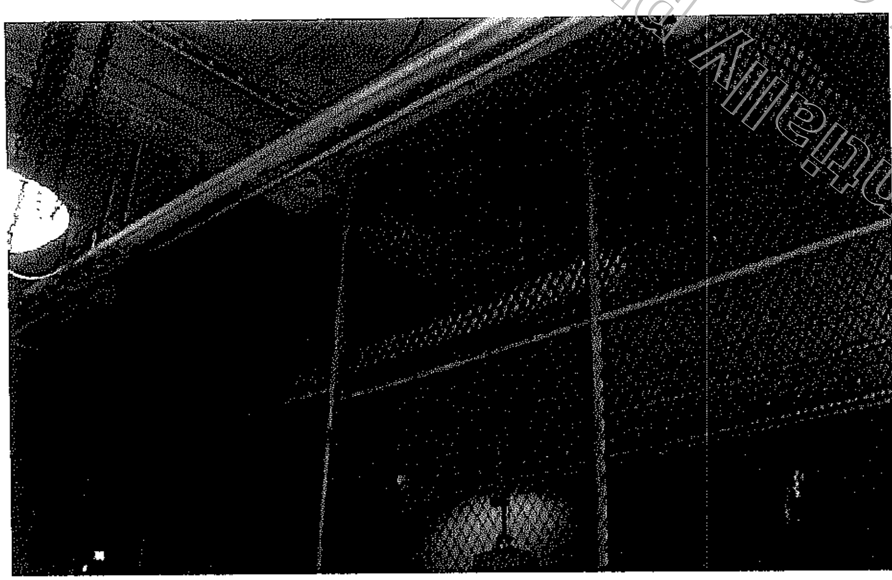

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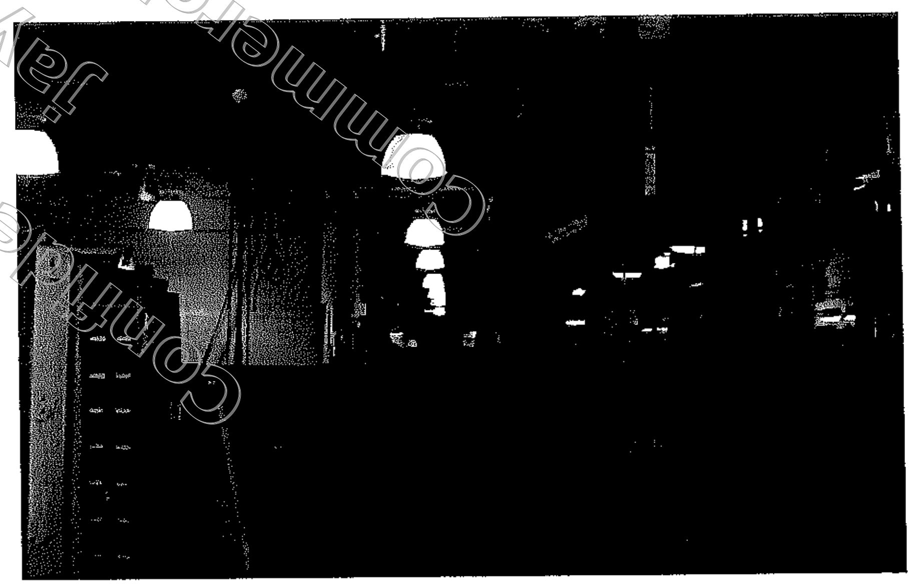

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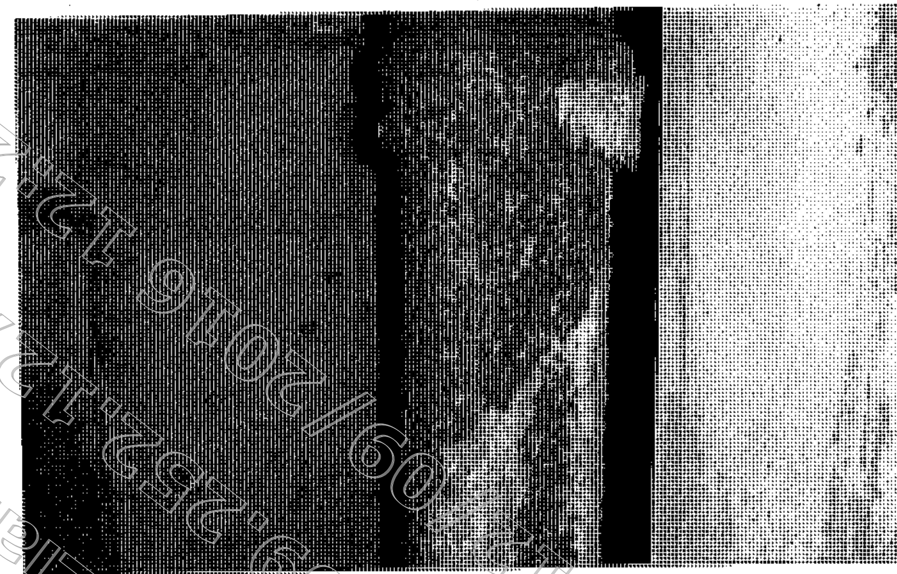

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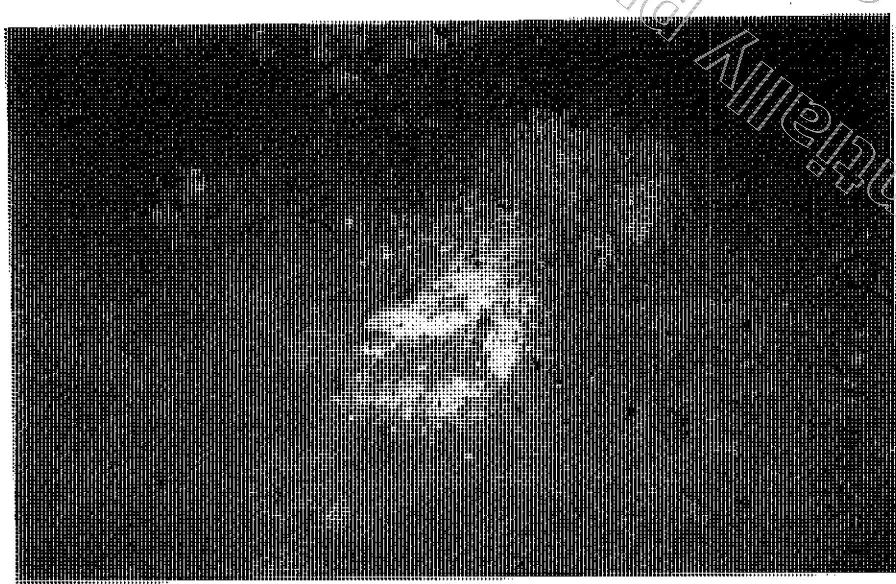

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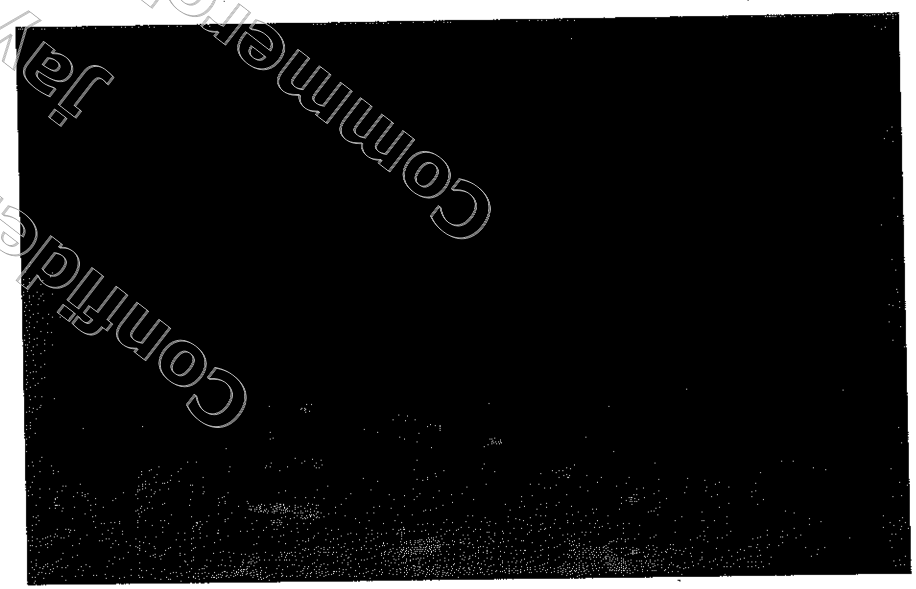

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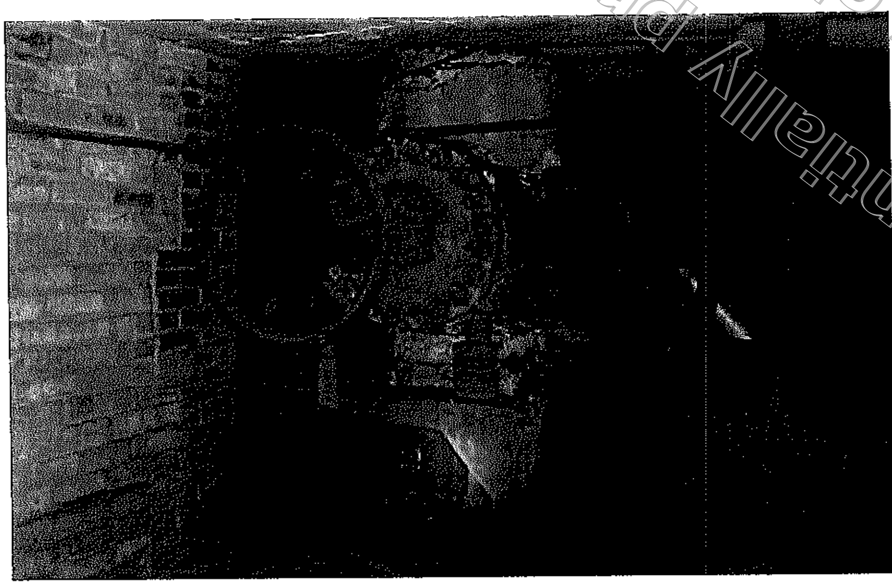

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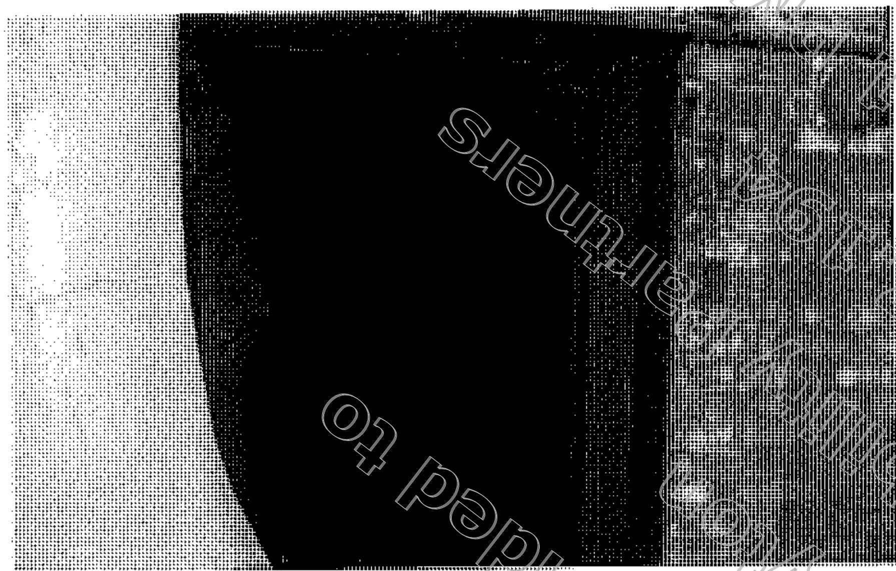

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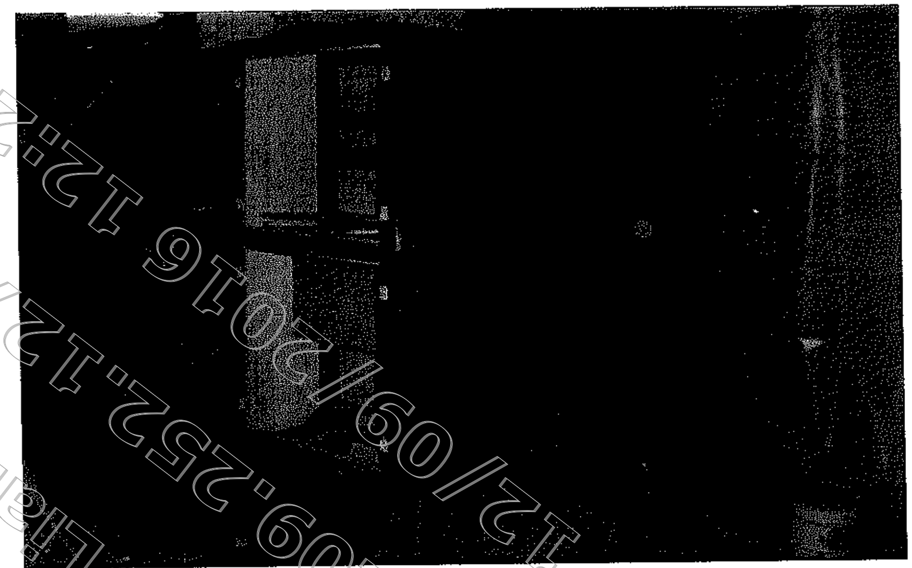

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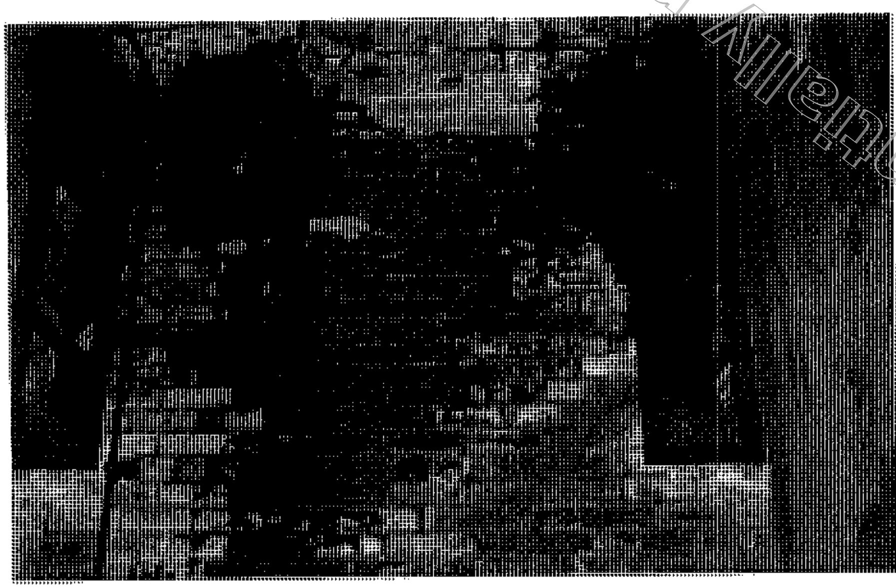

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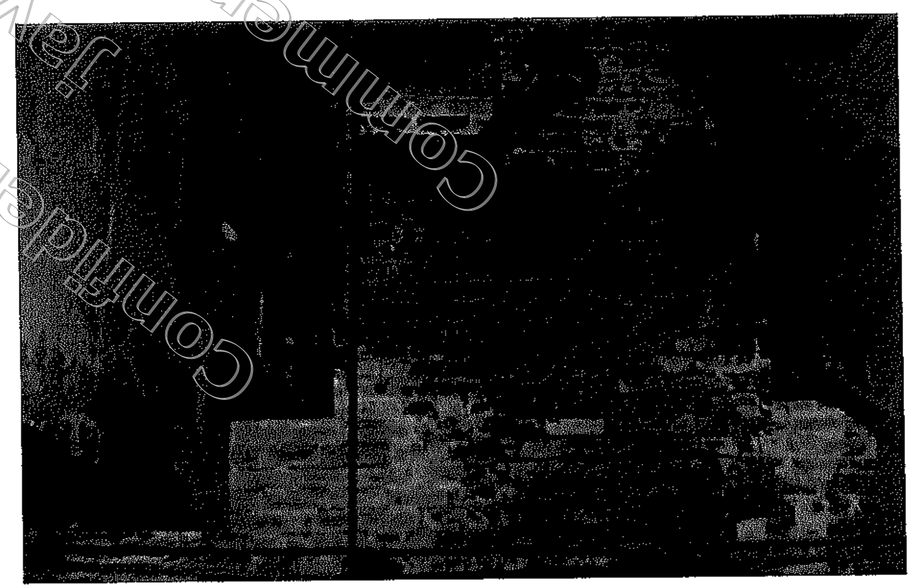

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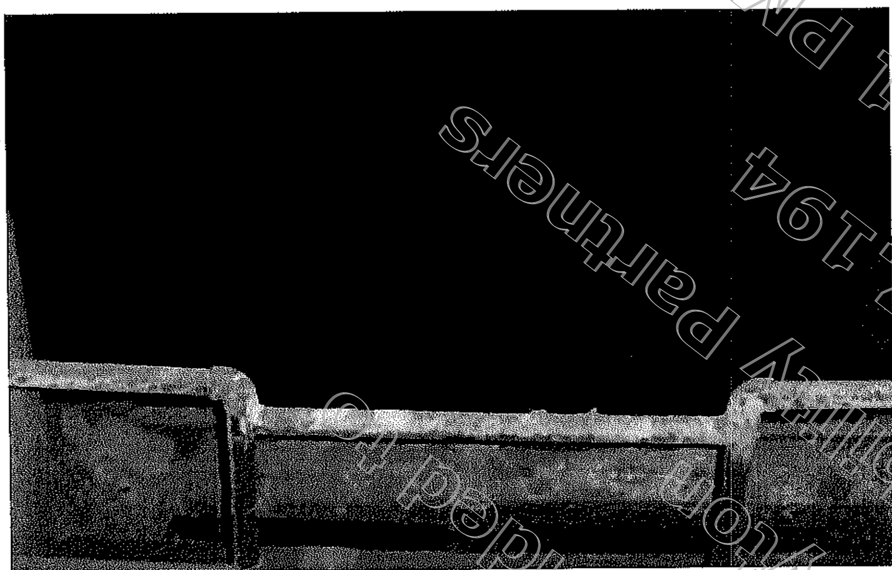

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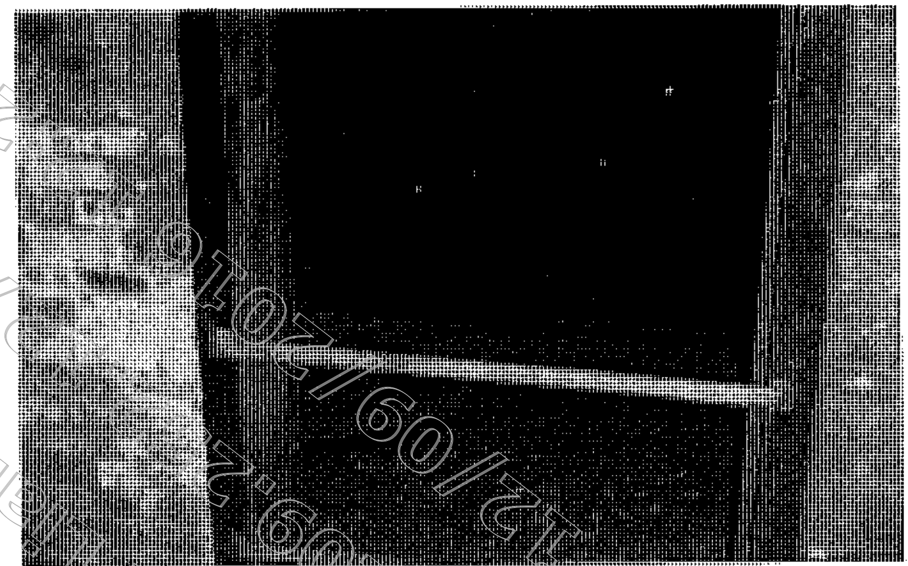

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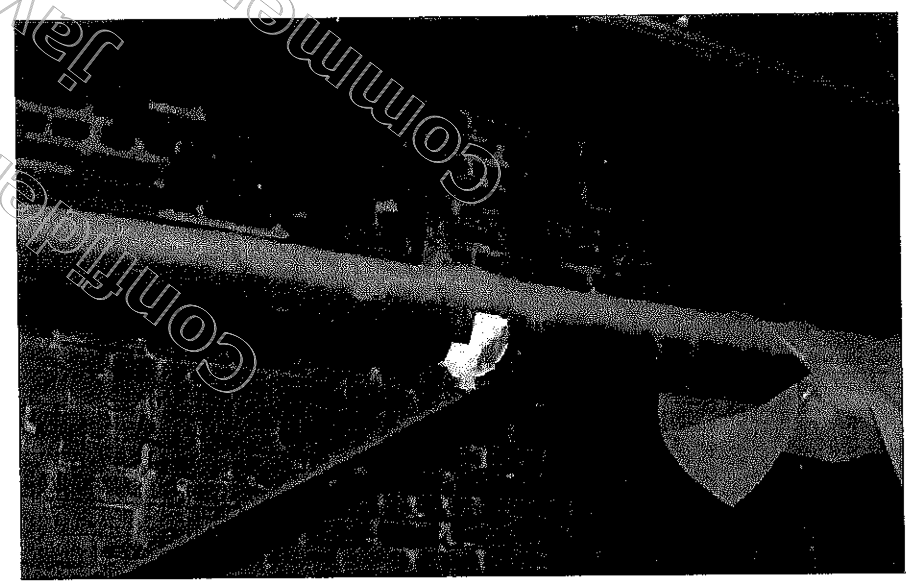

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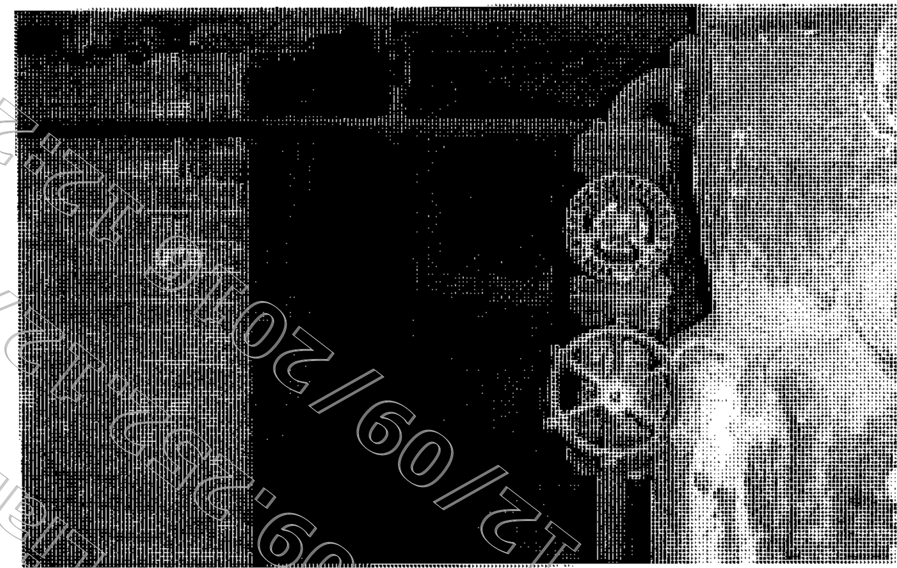

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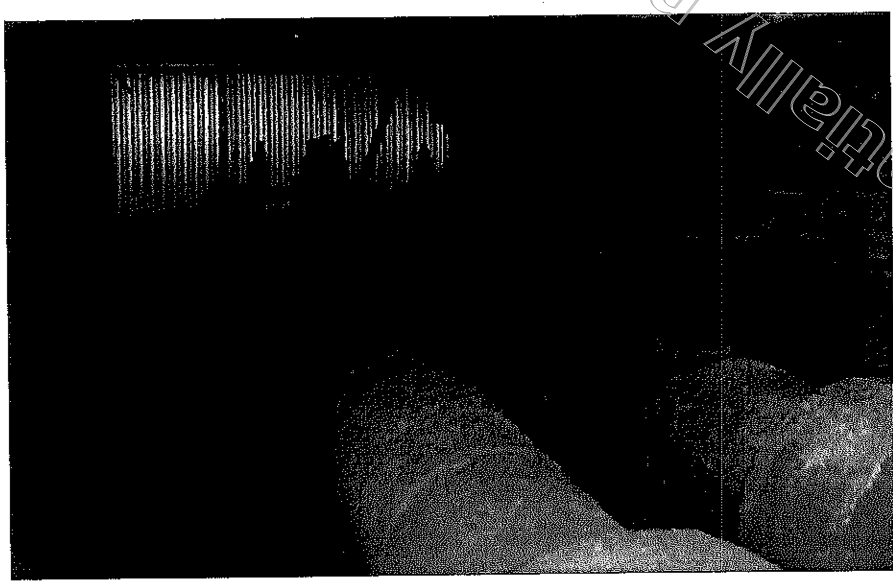

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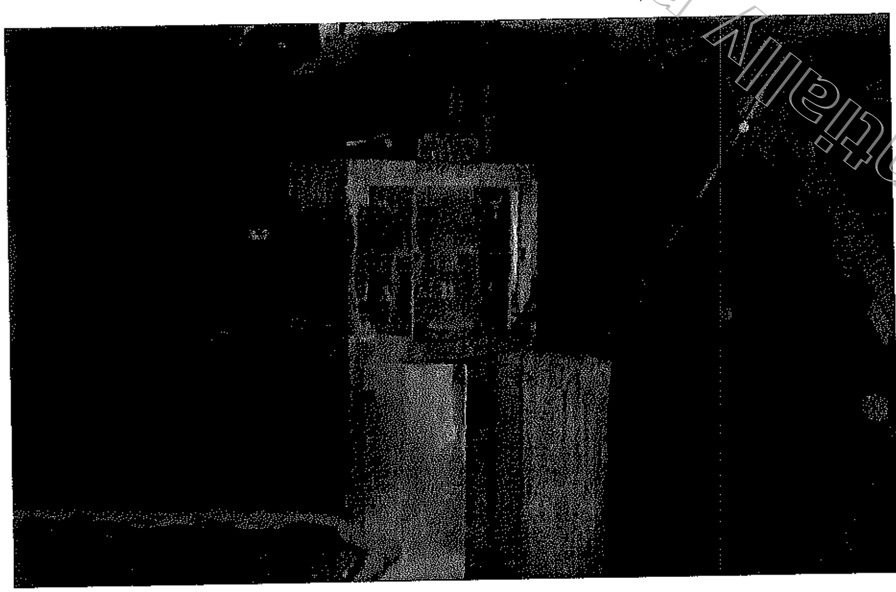

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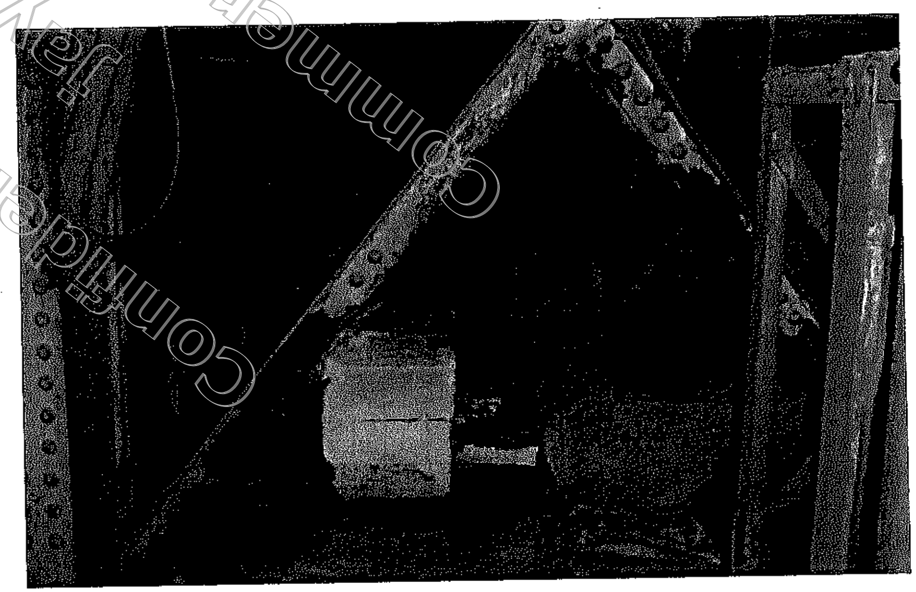

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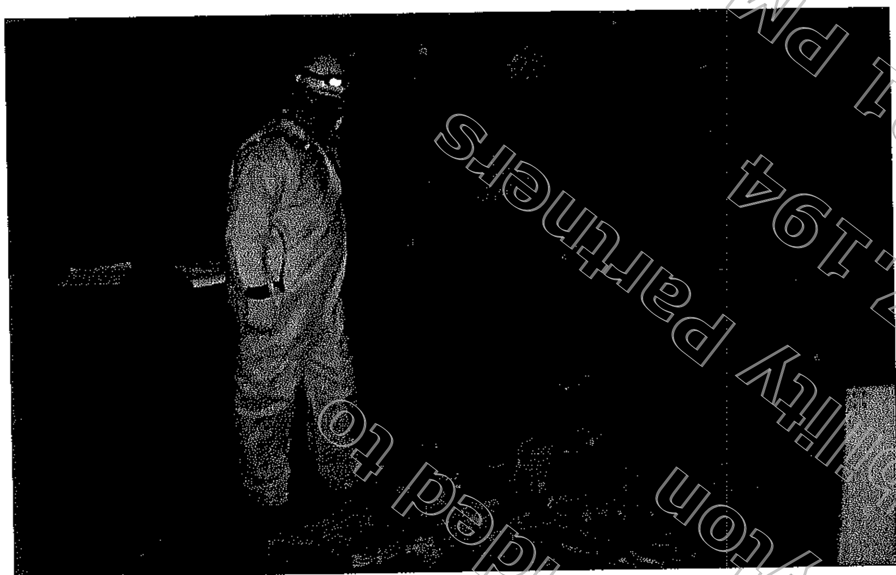

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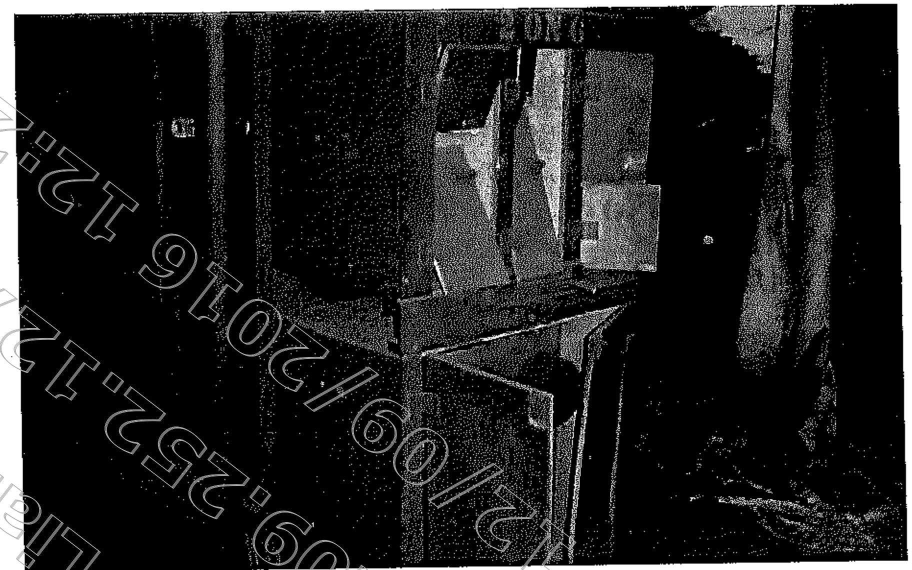

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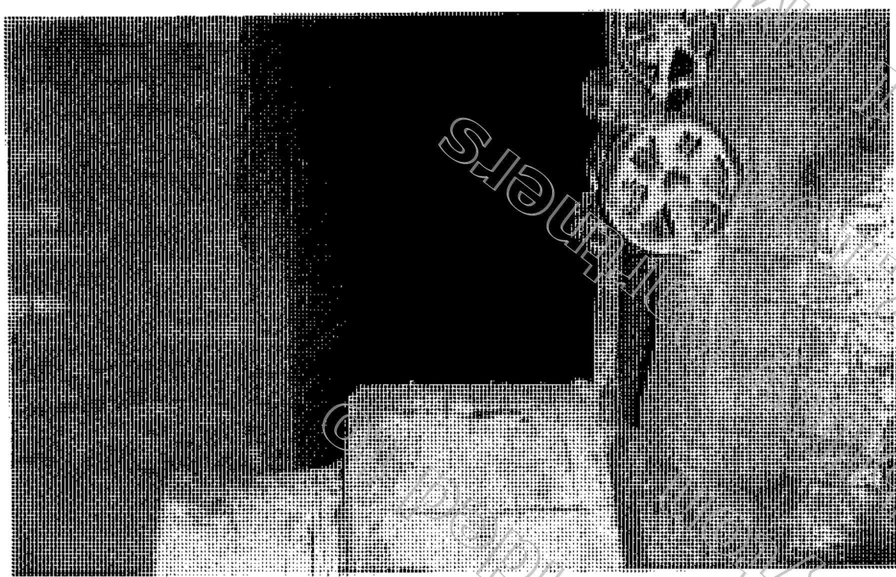

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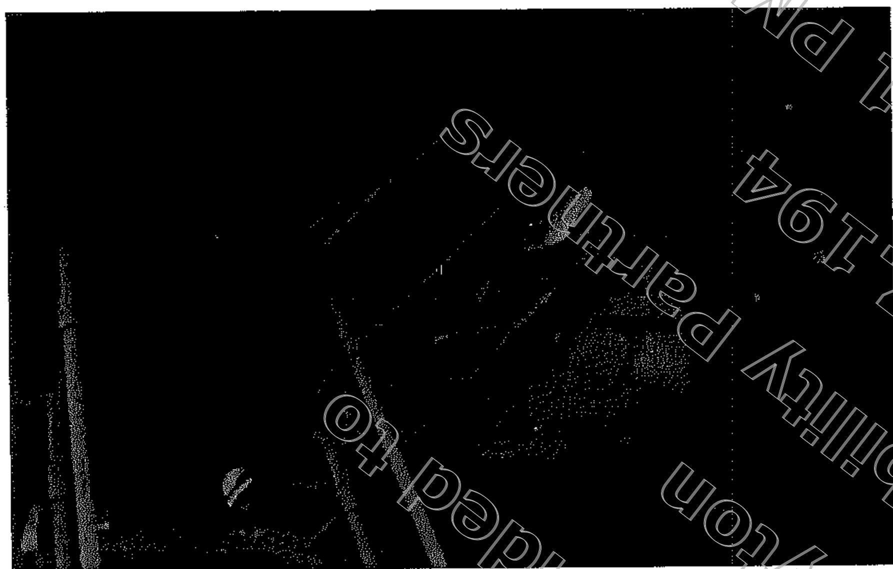

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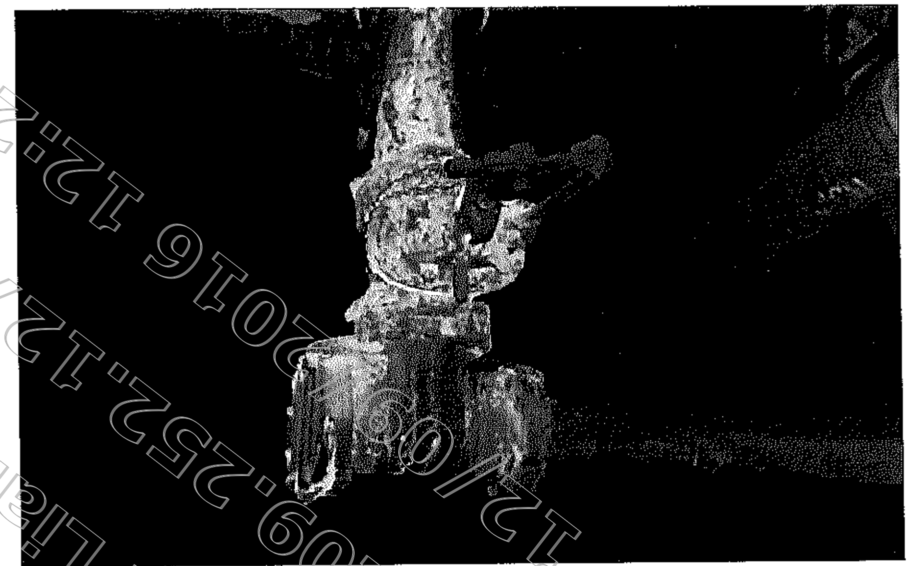

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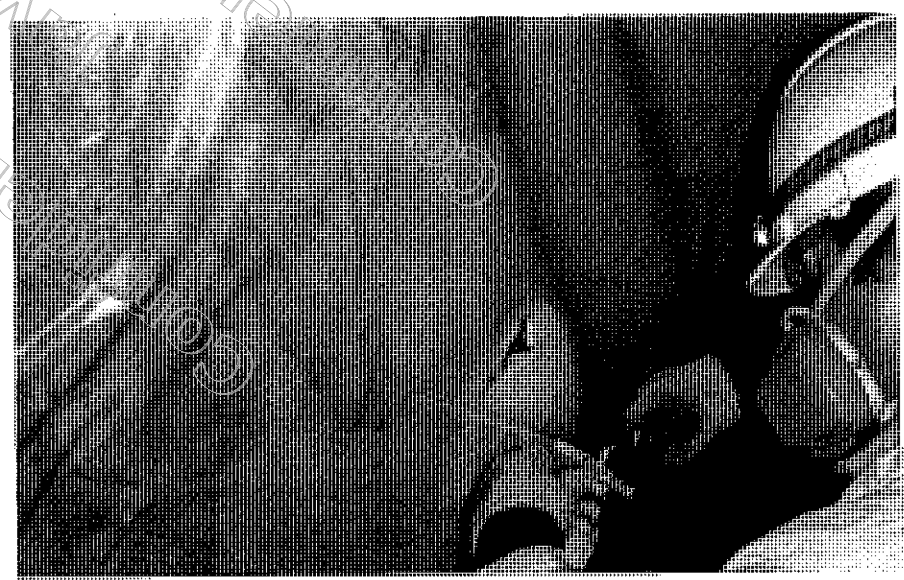

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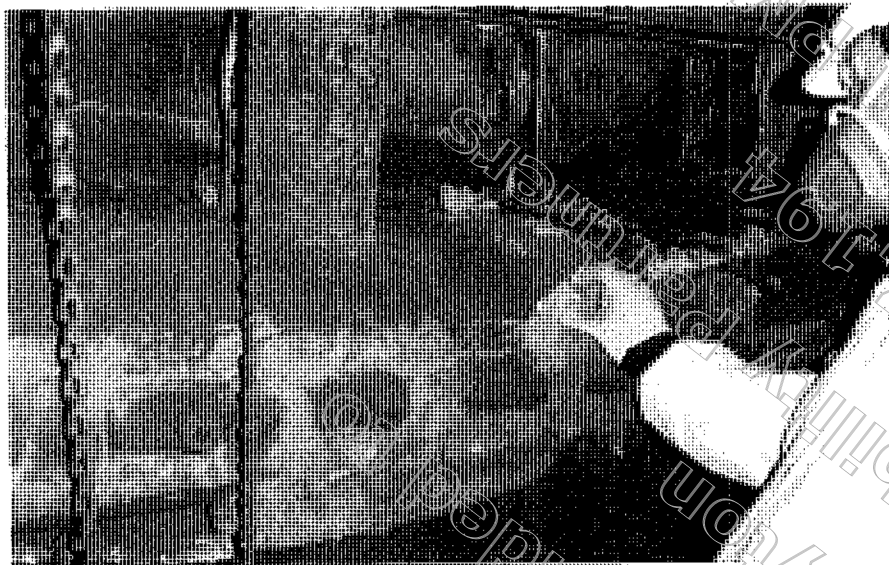

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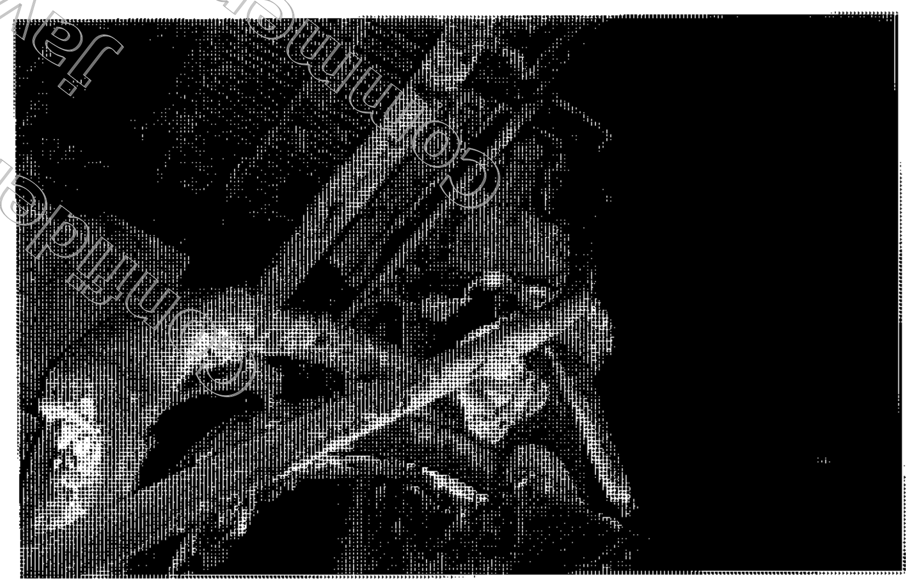

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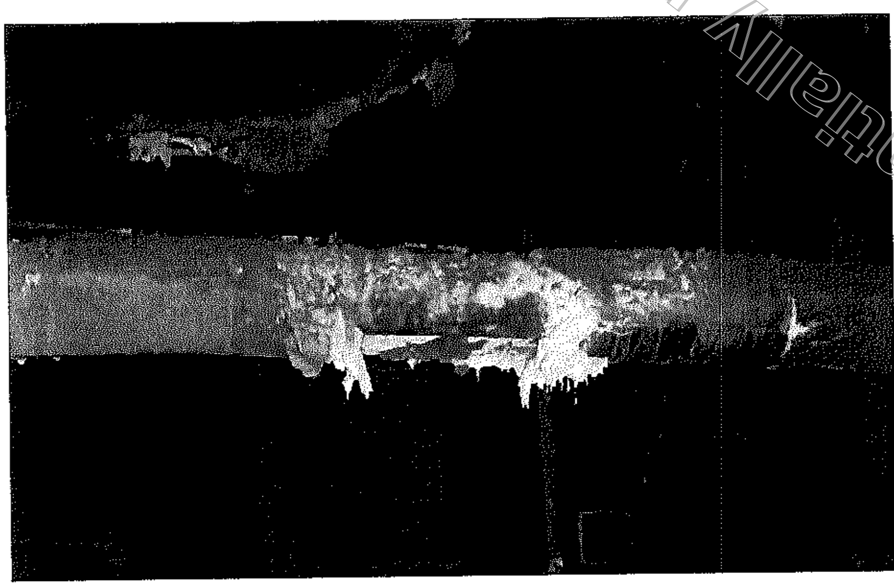

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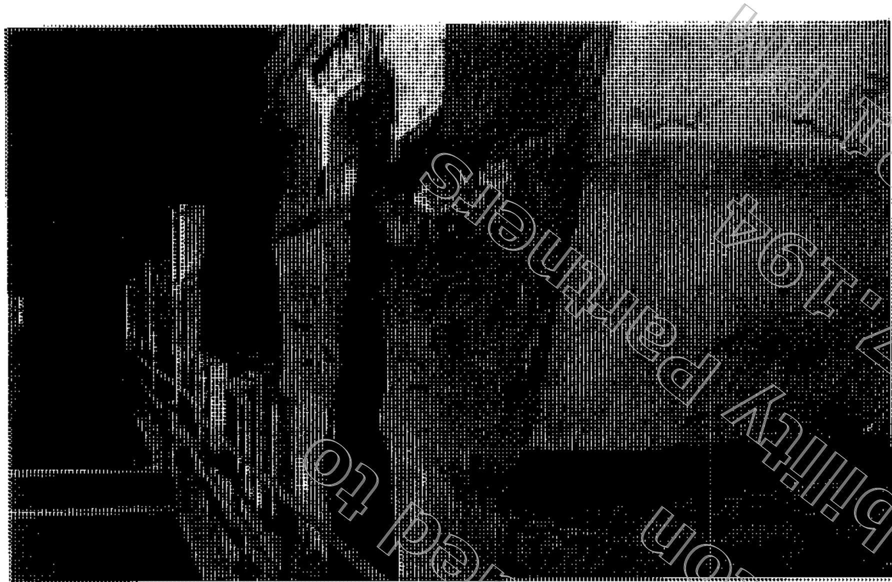

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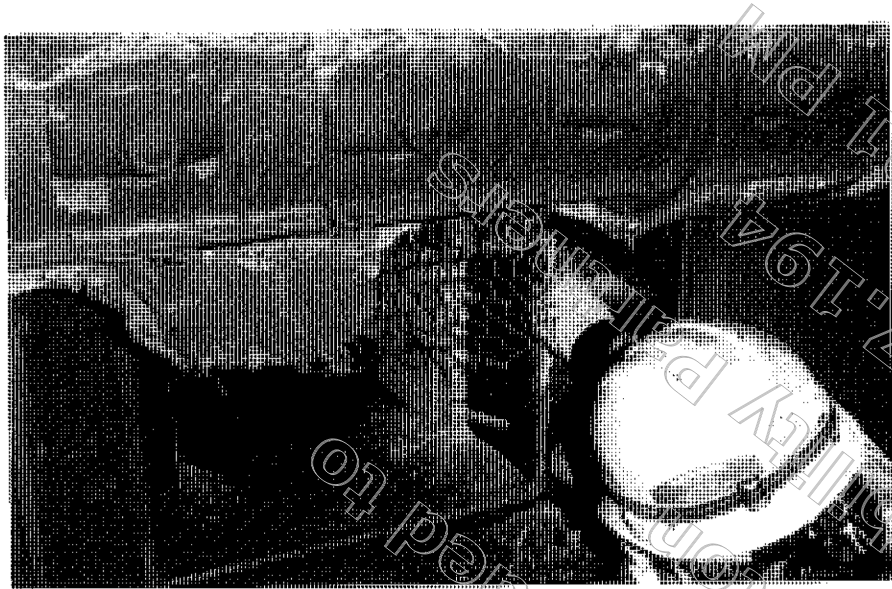

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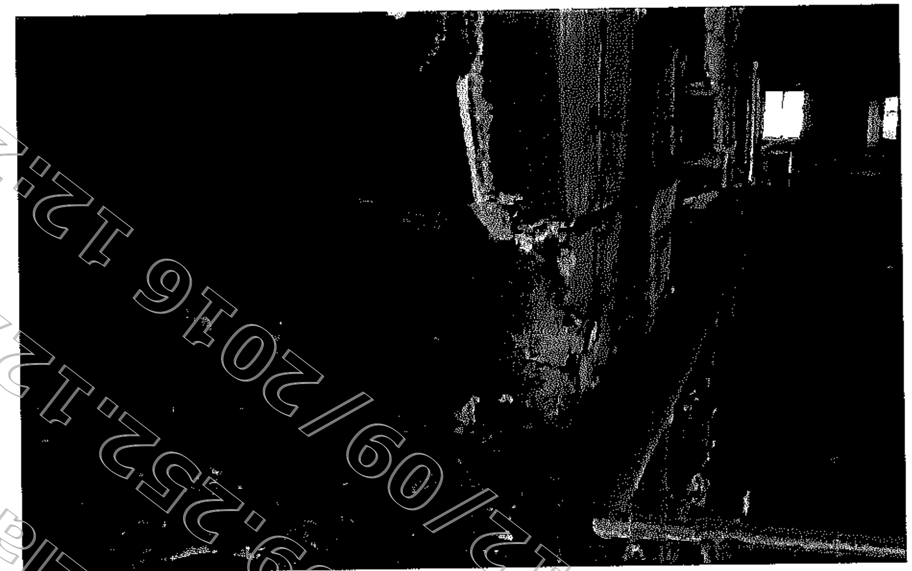

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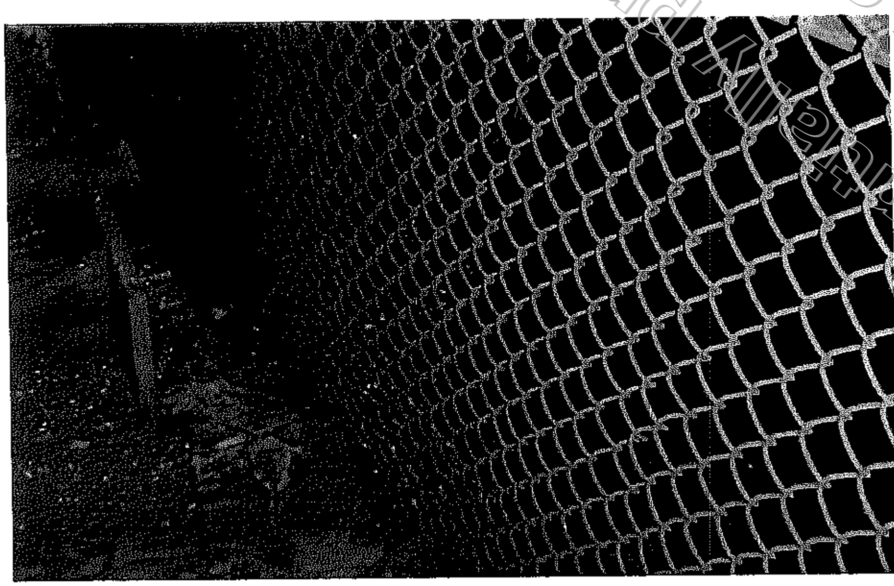

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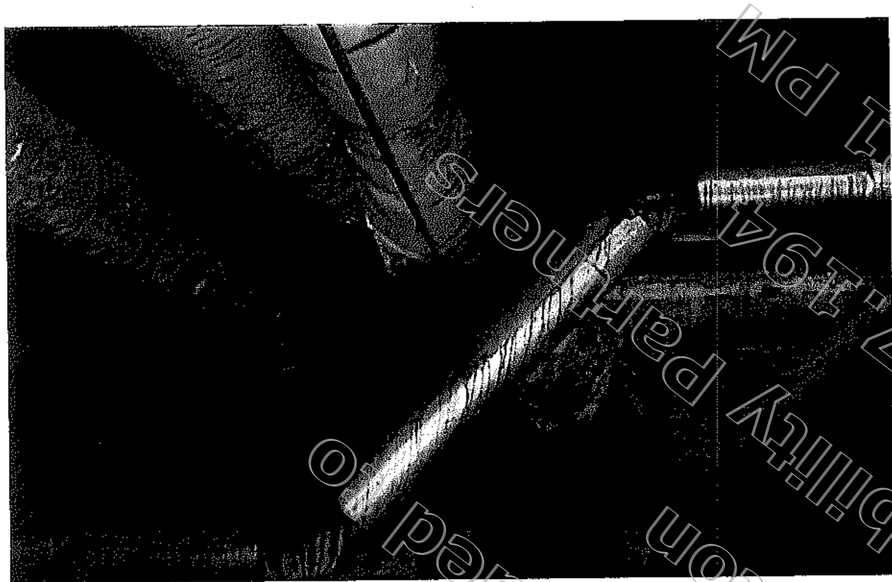

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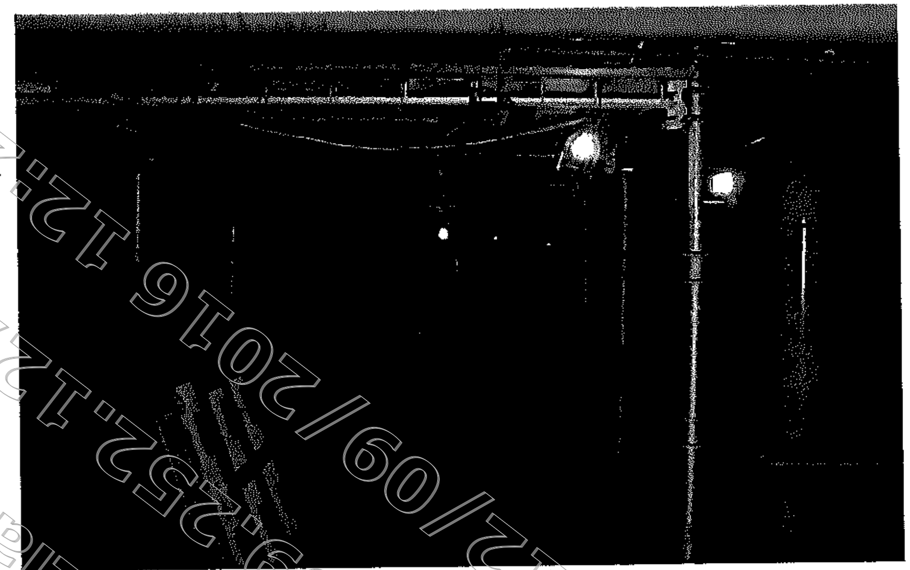

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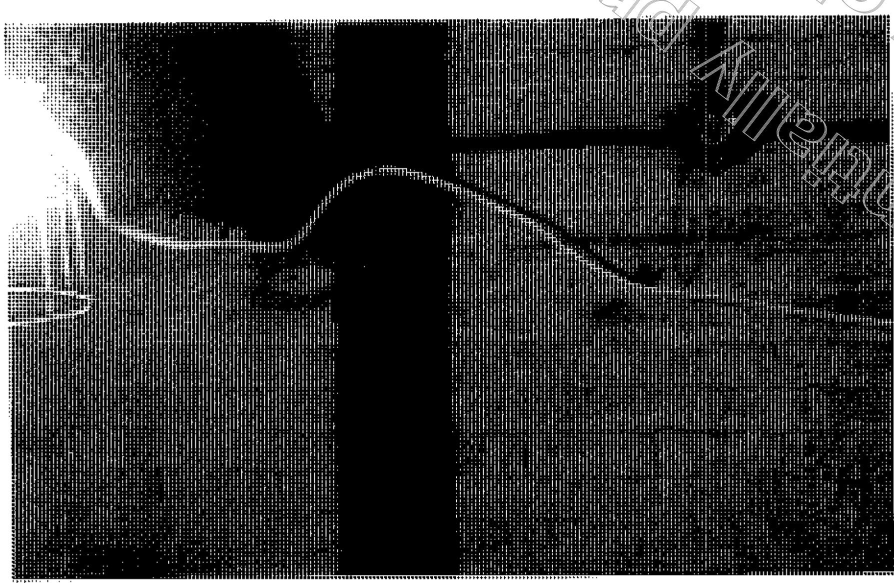

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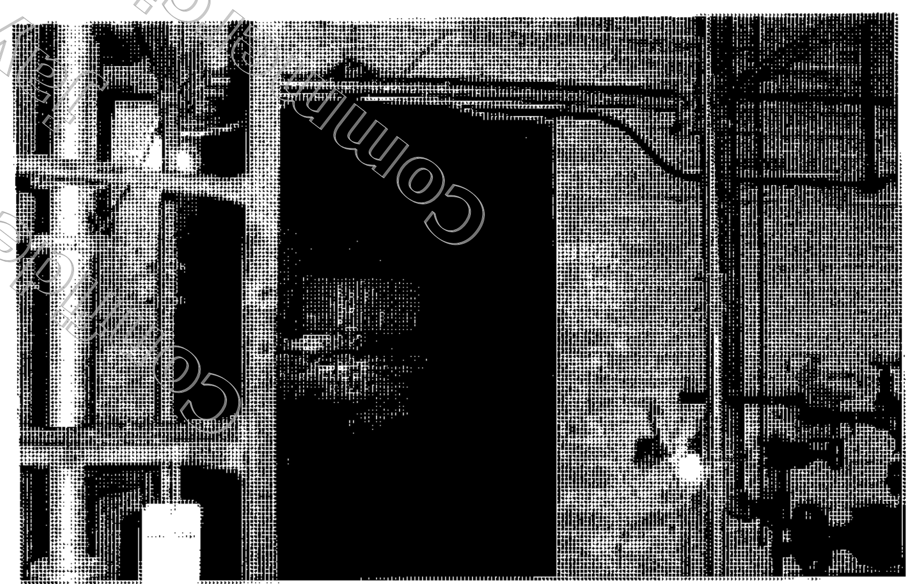

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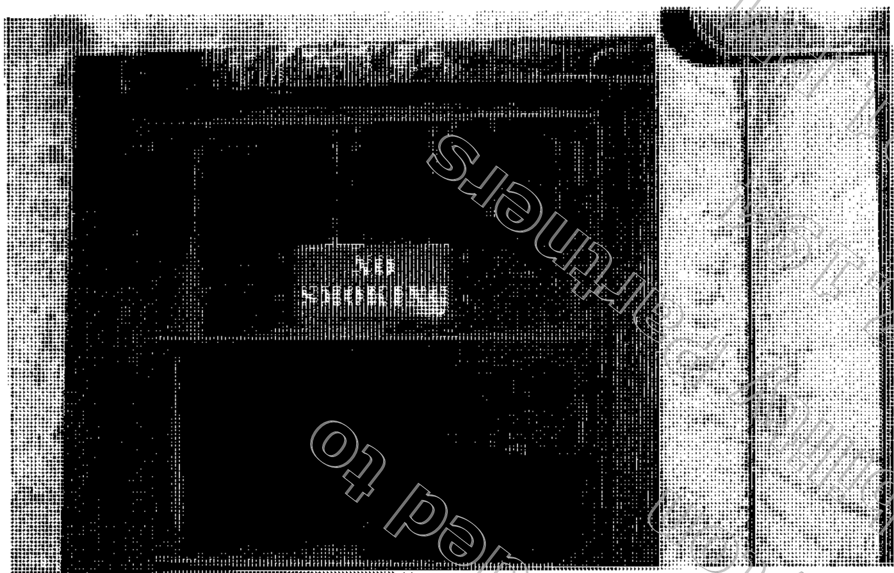

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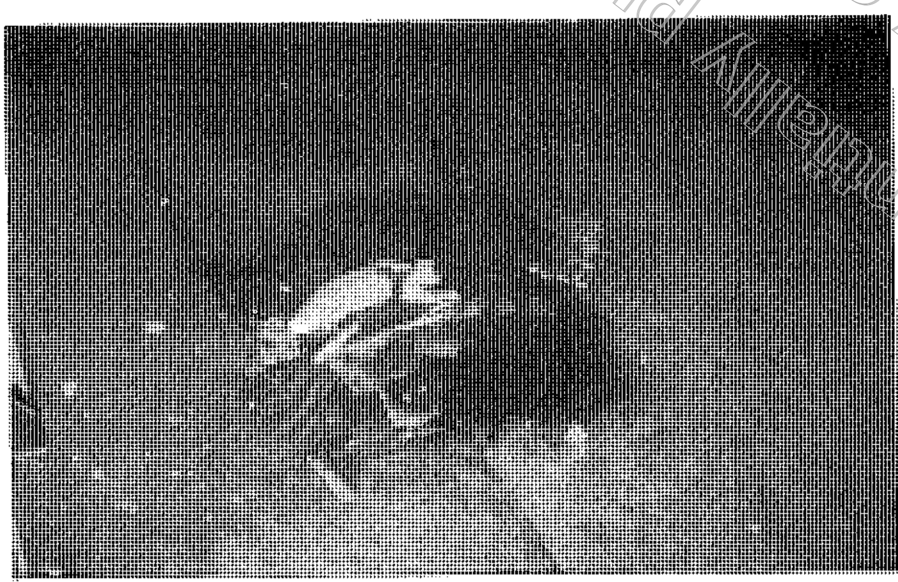

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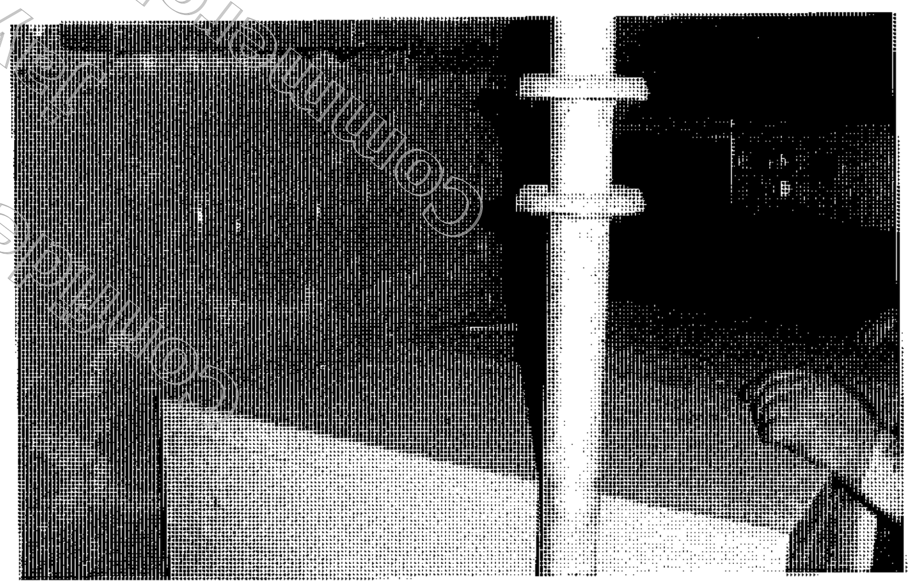

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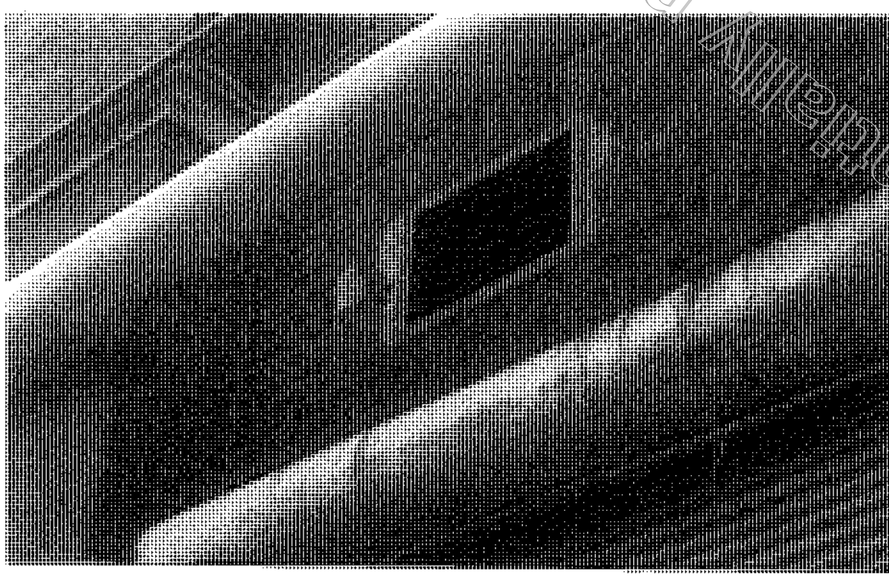

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